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AUTHOR Reid, Ernestine M.
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ABSTRACT

This paper describes a Piagetian-based evaluation measure and results obtained from the use of this measure with 1260 pre-kindergarten inner-city children. The children were enrolled in a program designed to develop their readiness skills. Family income, limited educational opportunities of adult members of the family, and dependency on public assistance were determinants of qualification for the program. The Pupil Evaluation Measure (PEM) was based on program objectives expressed in Piagetian terms. Each of nine tasks was designed to measure progress towards a more abstract level of cognitive development. Teacher assistants administered PEM to each child 5 times during the school year. Comparisons between October and June test results showed an increase in the proportion of students performing above the semiconcrete/semiabstract level on all nine PEM tasks. Appendices include graphs of PEM scores from the entire year, average pre- and post-test scores on the Stanford-Binet Intelligence Tests given the children, and procedures for administering and scoring the PEM. (BRT)

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Baltimore City Public Schools

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The Use of a Piagetian Scale of Development as a Part of Growth Measure of Pre-Kindergarten Children Participating in the Baltimore City Public Schools

PS 007997

Ernestine M. Reid

Office of Pupil and Program Monitoring and Appraisal

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Office of Pupil and Program Monitoring and Appraisal
Baltimore City Public Schools
Baltimore, Maryland

The Use of a Piagetian Scale of Development as a Part of Growth Measure of Pre-Kindergarten Children Participating in the Baltimore City Public Schools

Ernestine M. Reid, Staff Specialist
Edward N. Whitney, Staff Director
John L. Crew, Deputy Superintendent
Roland N. Patterson, Superintendent of Schools

Paper prepared for the Piagetian Society Conference held at the Childrer's Hospital, Los Angeles and presented by Ernestine Reid.

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ABSTRACT

The Early School Admissions Program (ESAP), with its objectives, has been in operation in the Baltimore City Public School (BCPS) System for several years. It was a pre-Kindergarten program for four-year-olds and those nearly four. This program was concerned with the development of cognitive and verbal abilities. With this in mind, credence was given to many avenues opened for experimentation and a Piagetian based curriculum. It became paramount to place emphasis on thought processes and assimilated language in order to develop logical thinking among these four-year olds.

Together, with the Project Manager of ESAP, the Director of The Office of Pupil and Program Monitoring and Appraisal (OPPMA) an office of BCPS, constructed a criterion reference measure, Program Evaluation Measure (PEM).

The measure, based on the nine program objectives, maintained the concepts of Jean Piaget, as he traced the stages of development of children as they entered the pre-operational period at about the age two and through age seven. A measure such as PEM, locally constructed and administered at monthly intervals was apparently far better suited for the disadvantaged and/or inner-city child than the commercial standardized tests. More than that, the Piagetian concepts of child development seemed a more logical measure of pupil growth. It meant that a child's growth could be measured in terms of his own individual rate rather than by national or even local norms for that matter. Moreover, by providing teachers in the program with data concerning each child, the teacher could plan and adjust the program to meet the needs of the individual. Also information could be provided the future kindergarten teacher that would enable her to plan to build on strengths and to boost weaknesses of the individual child.

Several variables were studied and assessed in the ESAP during the school year 1974-75. Considering these variables, certain socio-economic, racial and cultural, and family background data were gathered that provided insights beyond the "wildest dreams" of the evaluators.

Correlations between the various groups indicated that with the proper use of evaluations by program people, teachers and other educators, all children can learn and achieve some level of success through proper planning.

The use of a Piagetian scale measure has enabled us to be more objective in observing and respecting the learning process as such applies not only to the group of pupils, but to the individual pupil as well.

The Use of a Piagetian Scale of Development as a Part of Growth Measure of Pre-Kindergarten Children Participating in the Baltimore City Public Schools

The Early School Admissions Program has been in operation in the Baltimore City Public Schools for ten years. It was a Pre-Kindergarten Program for four-year-old and nearly four year old children (1260). The goal of the program was to develop skills that would "open doors" to reading readiness. It was hoped that pupils engaged in the program would demonstrate readiness beyond that of pupils not participating in the Early School Admissions Program (ESAP)[1] upon entering Kindergarten.

The ESAP pupils were described as those four-year-olds living within an area defined as inner-city and disadvantaged. Family-income, as established by the Office of Economic Opportunity was one determinant for qualifications, other determinants were the limited educational opportunities of adult members of the family, dependency on public assistance and varied problems plaguing the family.

Prior to the school year 1973-74, the program evaluation was based on data gathered through commercially constructed tests. These tests were the intelligence measure, Stanford Binet, (Short form), the Verbal Maturity Scale and the Columbia Mental Maturity Scale. These tests proved to be of small value to teachers in their planning for individualization. Teachers needed some form of assessment which would inform them of the child's progress. Somehow this had to be done without "bogging" teachers down with testing, etc. In cooperation with the Project Manager for ESAP and the Staff Director of the Office of Pupil and Program Monitoring and Appraisal a measure was constructed to assess each program objective and would provide feedback to the teachers by child, class, school and program.

The measure, created as: Pupil Evaluation Measure (PEM), was based on a Piagetian scale of development. Each task, there were nine, was designed to observe pupil growth as he mastered simple tasks and proceeded to the more difficult tasks. In other words he was observed as he began with the concrete and advanced to a more abstract level of cognitive development. The measure was such that a child could be assessed in the latter stages of the sensori-motor period (neonate to 2 yrs.) to the preoperational period (2 to 7yrs.) and included early stages of the concrete operational period.

The sensori-motor period is the first stage of Piaget's developmental model. It is designated as the time from birth until the beginning of symbolic thought. According to Piaget, the child learns by imitation and repetition and for the most part is in a pre-language period.

[1]Early School Admissions Program shall be indicated as ESAP, throughtout the paper.

The stage with which PEM was most concerned was the preoperational period. The period, from two to about seven years, is characterized by two things, first, the appearance of the semiotic function which includes language, mental imagery, deferred imitation and drawing. (None of these functions were present previously) The semiotic function, at this point, allows interiorizing of imitation, now the child can now represent to itself an object when it is absent. This in turn permits the development of a new level of intelligence - intelligence in representation and thought. It is no longer restricted to action. At this level the child must reconstruct everything acquired at the level of actions; it has to reconstruct in conceptual terms everything that it has constructed so far in terms of schemes (Evans, 1973).

This entire period is a preparation for the construction of concrete operations. At the sensori-motor level actions take place in space that is immediate and at the present time, while semiotic function actions can and do project into the future. The Child, at this level has to not only reconstruct, but he has to deal with the adaptation to a newer and larger field. Everything seen at the sensori-motor plane has to begin anew at this representational plane. This is why operations are not seen immediately. Moreover, it is why conservation is not seen immediately. The child now moves from a presymbol level of conceptualization to a level of actual use of symbols (Evans, 1973).

PEM considered the developmental stages as described and explained by Jean Piaget. If teachers were to understand the developmental stages of children and their effect upon learning, they needed a measure that would help them. They needed to know if the pupils in their classes were growing and the rate of growth. There was an urgent need to know the strengths and weaknesses of each and every child. In the construction of PEM there was a means to allow observation and an evaluation of each child in the program as well as the overall program itself.

The instrument, based on the nine program objectives, was to provide information that would allow teachers to provide the sorely-needed individualization that everyone talks about, but does little to put it into practice. The information would, also make allowances for program change as the program was in operation. Most of all it was hoped this would give some indicators of the growth of children in the preschool years.

PROCEDURE

A workshop was set up to train teacher assistants[2] in the administering of the measure, PEM (Twenty-five schools were involved (1260) pupils). It was important, as mentioned before, that classroom teachers not be burdened with the added duties of testing and assessment, thus the reason for involving

[2]teacher assistants known here as paraprofessionals trained to assist classroom teachers in the reinforcement of skills taught for the purpose of fostering individualization in learning.

the teacher assistants. The teacher assistants administered the tests monthly on an individual basis. The testing period covered the months of October, 1973 through January, 1974 and again in May, 1974[3].

When testing was completed, the tests were sent to the Staff Specialist at the Office of Pupil and Program Monitoring and Appraisal (OPPMA). Here they were evaluated and assessed by pupil, by class, by school and by program. Upon completion, each teacher and program official was apprised of the findings and advised accordingly. Extensive record keeping was involved. At the end of the school year 1973-74 an overall report was provided each program participant[4] as well as Baltimore City Public School Officials and the State Department of Education.

FINDINGS

According to PEM data, ESAP Pre-Kindergarten pupils were growing. The statistics following indicate by objective the number of pupils operating below and/or above the semi-concrete/semi-abstract level of cognitive development in October 1973 and then in May 1974. The scale used to ascertain levels of development follows: 0 - 24% concrete, 25 - 49% semi-concrete, 50 - 74% semi-abstract, 75 - 100% abstract.

The objectives and tasks follow, demonstrating findings according to PEM.

Objective 1: EACH PUPIL WILL DEMONSTRATE THE ABILITY TO IDENTIFY, NAME AND DESCRIBE A VARIETY OF CONCRETE OBJECTS INCLUDING PEOPLE, ANIMALS, TOYS.

Given the concrete objects mentioned the child was first asked to identify, then name and then describe each. As the child progressed from one stage to the next, the stage of performance (i.e. concrete to abstract conceptualizing) was determined.

Time Tested	Below 50%	Above 50%
October	755	262
June	230	845

[3]The teachers' strike interrupted the testing February through April.

[4]Program participants include teachers, project manager and others involved in the Early Childhood Education Program.

Objective 2: EACH CHILD WILL DEMONSTRATE INDIVIDUAL DEVELOPMENT OF FURTHERING HIS LANGUAGE ABILITY IN CONVERSATION, SELF-EXPRESSION AND RELATING EXPERIENCES.

The child listens to a story and is asked to relate in a measure of one, two words or sentences, the story back or a related one of his own.

Time Tested	Below 50%	Above 50%
October	632	294
June	185	823

Objective 3: EACH CHILD WILL USE PROBLEM SITUATIONS TO DEVELOP THINKING AND REASONING SKILLS.

He is asked to discuss or perform a means to solve a problem. The degree to which he needs help in solving the problem determines the level of performance.

October	452	664
June	60	1063

Objective 4: EACH PUPIL WILL DEVELOP CLASSIFICATION SKILLS AND WILL BE ABLE TO GROUP CONCRETE OBJECTS BY FORM, SIZE, COLOR AND FUNCTION.

The child performs classification skills and will be able to group concrete objects by form, size, color and function.

October	933	357
June	126	655

Objective 5: EACH PUPIL WILL DEVELOP SKILLS IN VISUAL AND AUDITORY PERCEPTION AND WILL BE ABLE TO DISCRIMINATE, MEMORIZE, RECALL AND REPRODUCE.

The child's ability to group according to similarities, discrimination, memorization, recall and reproducing is determined by tasks administered in categories: concrete, semi-concrete, semi-abstract and abstract.

October	927	297
June	141	687

Objective 6: EACH PUPIL WILL DEVELOP MOTOR PERCEPTUAL SKILLS AND WILL BE ABLE TO IDENTIFY, NAME, AND DESCRIBE BODY PARTS AND FUNCTIONS, ORIENT ONE'S BODY TO DIFFERENT KINDS OF SPACES, AND COORDINATE EYE-HAND AND EYE-FOOT ACTIONS.

The child is asked to perform exercises, identify body parts and to orient his body to certain and varied spaces. In each instance the child begins with concrete aids and as tasks develop in difficulty the use of aids is decreased until he is involved only in abstract reasoning.

Time Tested	Below 50%	Above 50%
October	897	524
June	218	537

Objective 7: EACH PUPIL WILL DEVELOP QUANTITATIVE SKILLS BY BEING ABLE TO IDENTIFY, MATCH, AND COMPARE SETS OF OBJECTS, COUNT, AND DEVELOP BASIC UNDERSTANDINGS IN ADDITION AND SUBTRACTION.

The child will develop quantitative skills by being able to identify, match and compare sets of objects, count and develop basic understandings in addition and subtraction. He begins by following demonstrations and then going on to the difficult by performing a task of making sets without a model to follow.

October	798	224
June	301	772

Objective 8: EACH PUPIL WILL DEVELOP WHOLESOME FEELINGS OF SELF.

An assessment of the child's ability to perform tasks as they relate to him as a person and how he feels about himself as he relates to others is determined.

October	934	341
June	174	776

Objective 9: EACH PUPIL WILL HAVE OPPORTUNITIES TO INCREASE THOSE ABILITIES THAT ALLOW HIM TO USE A VARIETY OF ART MEDIA AND MANY ART FORMS.

The pupil shall be able to first (at the concrete stage) name materials needed to perform in the particular art medium, then he is asked to identify and discuss the purpose of (concrete/abstract) materials peculiar to certain art medium. To reach the abstract level the child shall be able to demonstrate and discuss the use of materials.

October	1072	661
June	2	345

The findings were valuable and interesting. In October, 1973, 67% of the pupils were operating at and/or bel. w the level of semi-concrete development, while 33% operated at the semi-abstract level. In May 1974, 82% of the pupils signified a readiness for reading and kindergarten. (See Appendix for additional reports).

SUMMARY

As a result of the findings demonstrated by the pre-Kindergarten pupils, Baltimore City Public School System has found a measure that has the potential to provide a method of following boys and girls throughout their school careers, pre-Kindergarten through 12th grade. A measure such as this has provided information concerning children according to socio-economic conditions, racial backgrounds, and whether or not there is an apparent effect on children, dependent upon one parent, two parents and/or guardian in the home.

Many child psychologists have said much about the racial differences among children effecting achievement. They have said much about the inability of inner-city children to learn and to progress. The children in this study were pre-K, disadvantaged and racially-mixed. Yet, there was growth indicated regardless of backgrounds. (See Appendix) Information was such that kindergarten teachers could receive data that would enable them to plan a program to meet their individual needs.

Children at the preschool age can be assessed and evaluated to the degree wherein programs for their future educational experiences can be planned and instituted. PEM has proven itself as a measure within the relm of the stages of development among children. If educators could realize the importance of observing and evaluating pupils according to the pupil's own rate of development and growth there is a great possibility of alieviating frustrations that in turn cause failure and drop-outs.

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APPENDICES

Appendix A : Included in the appendices of this paper are the various forms of data collection utilized for distribution by pupil, school, program, sociological background and and by ethnic background. Pages 1 - 25.

Appendix B : Also there is a graph demonstrating data gathered from the Stanford-Binet (Short Form) Intelligence Test and another depicting relationships of the criterion-measure (PEM) and the Binet scoring of the pupils. Pages 1 - 6.

Appendix C : Procedures for Adminstering and Scoring the PUPIL EVALUATION MEASURE. Pages 1 - 14.

APPENDIX A

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

MONTHLY INDIVIDUAL PUPIL MEASUREMENT of PROGRAM OBJECTIVE

PUPIL NAME

SCHOOL

DATE

AM PM

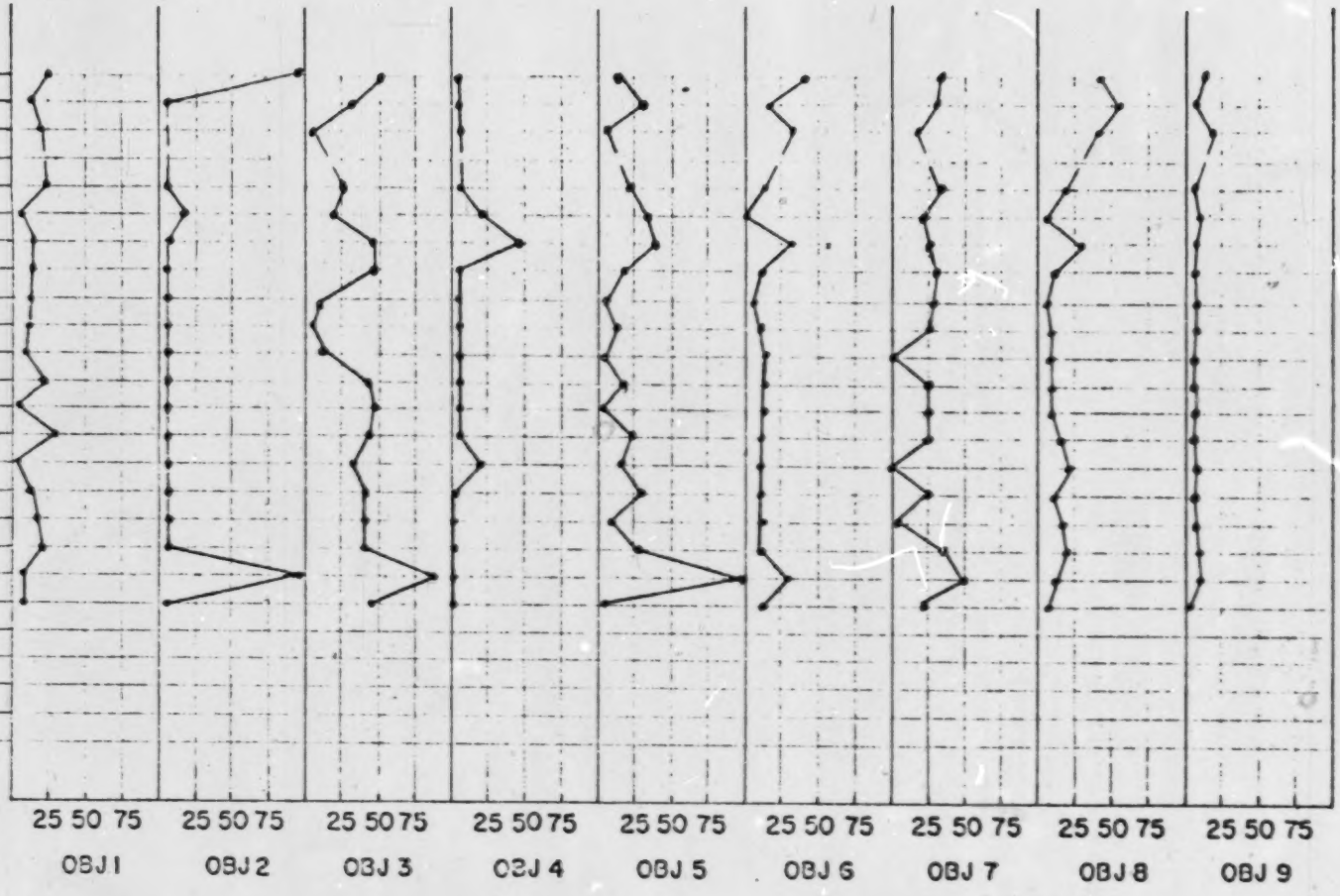

CHART 3

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

MONTHLY INDIVIDUAL PUPIL MEASUREMENT of PROGRAM OBJECTIVE

PUPIL NAME

SCHOOL

DATE OCT 1973

AM ___ PM

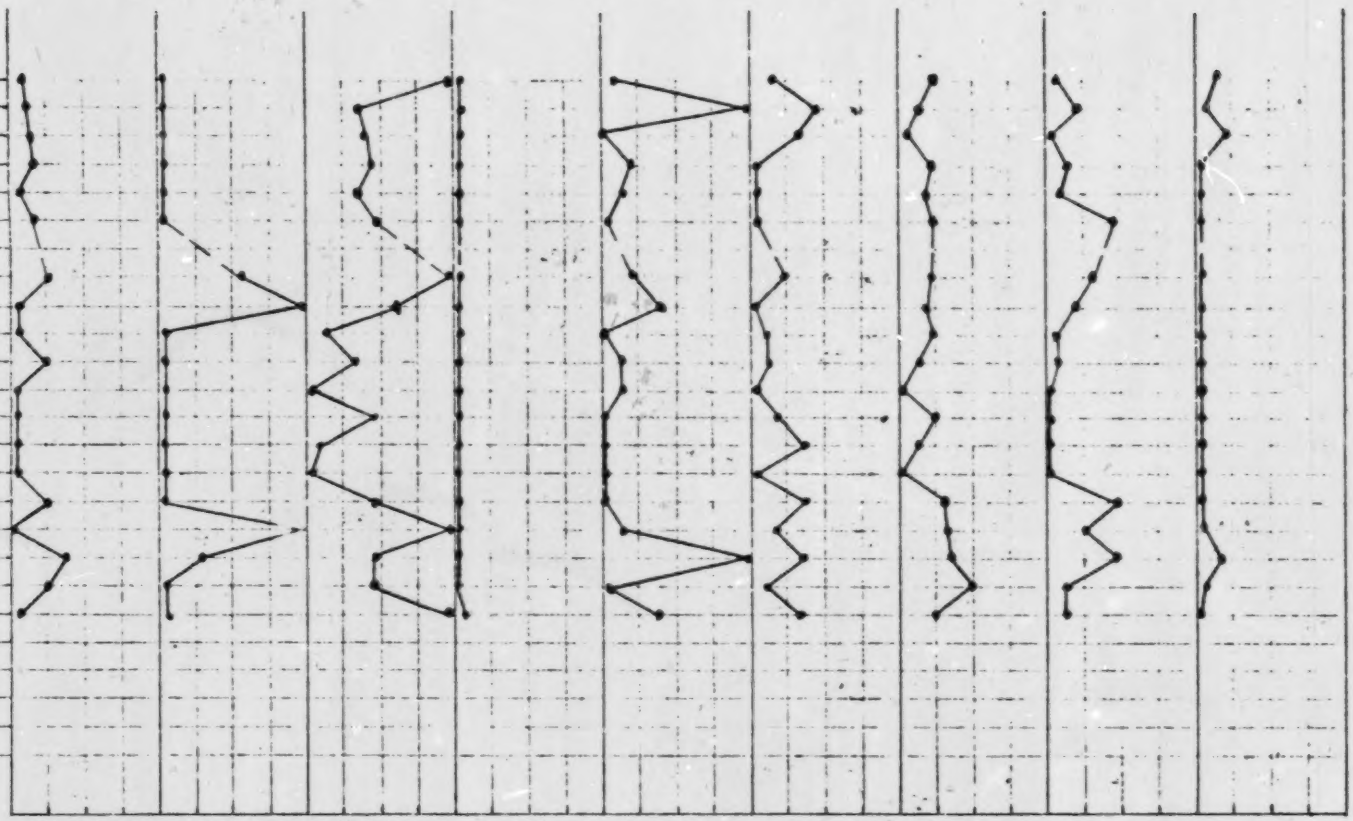

CHART 3

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

MONTHLY INDIVIDUAL PUPIL MEASUREMENT of PROGRAM OBJECTIVE

PUPIL NAME

SCHOOL

DATE NOV 197

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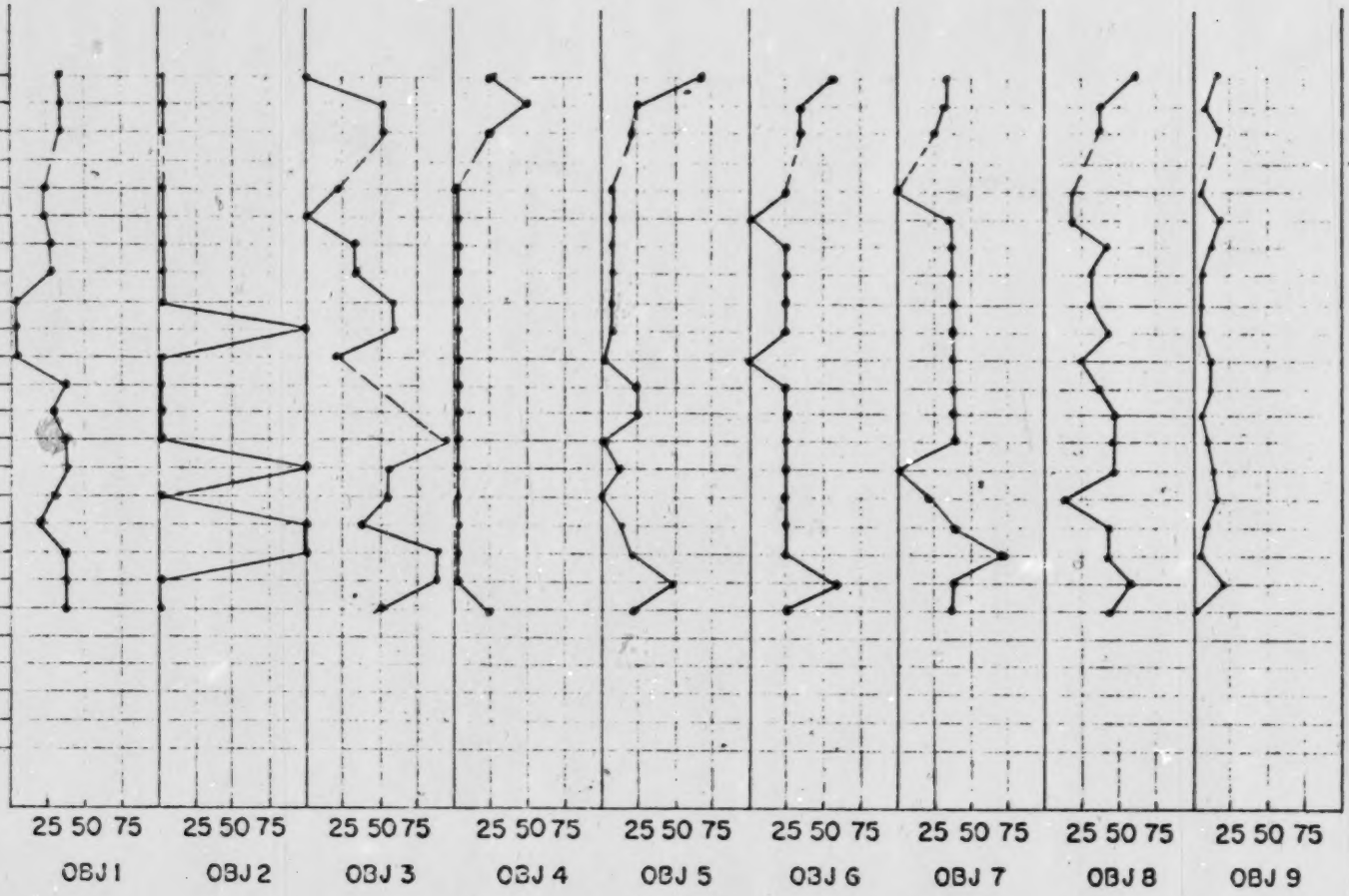

CHART 3

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

MONTHLY INDIVIDUAL PUPIL MEASUREMENT of PROGRAM OBJECTIVE

PUPIL NAME

SCHOOL

DATE NOV 7

AM ____ PM

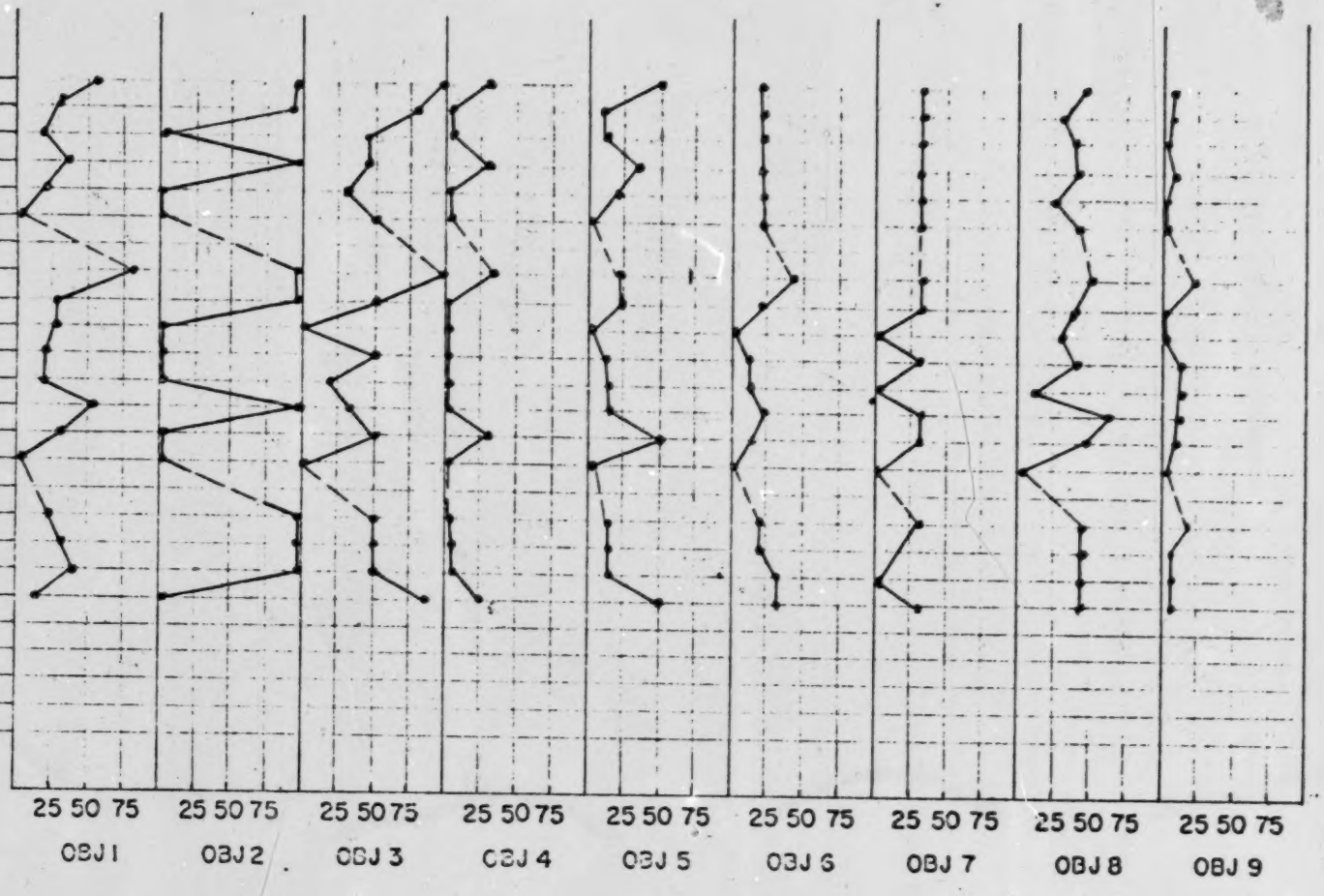

CHART 3

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

MONTHLY INDIVIDUAL PUPIL MEASUREMENT of PROGRAM OBJECTIVE

PUPIL NAME

SCHOOL

DATE 12/73

AM ✓ PM

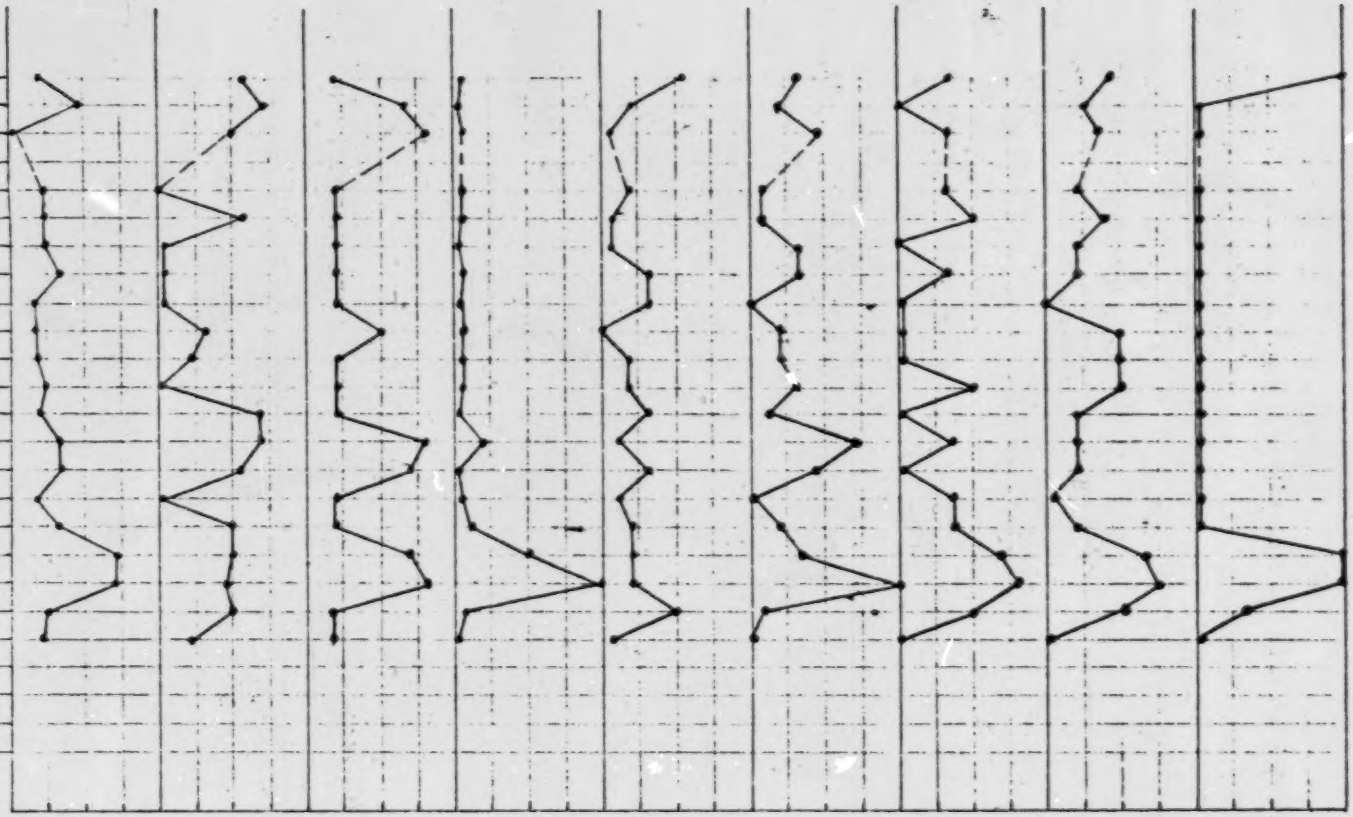

CHART 3

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

MONTHLY INDIVIDUAL PUPIL MEASUREMENT of PROGRAM OBJECTIVE

PUPIL NAME

SCHOOL

DATE 12/73

AM ____ PM

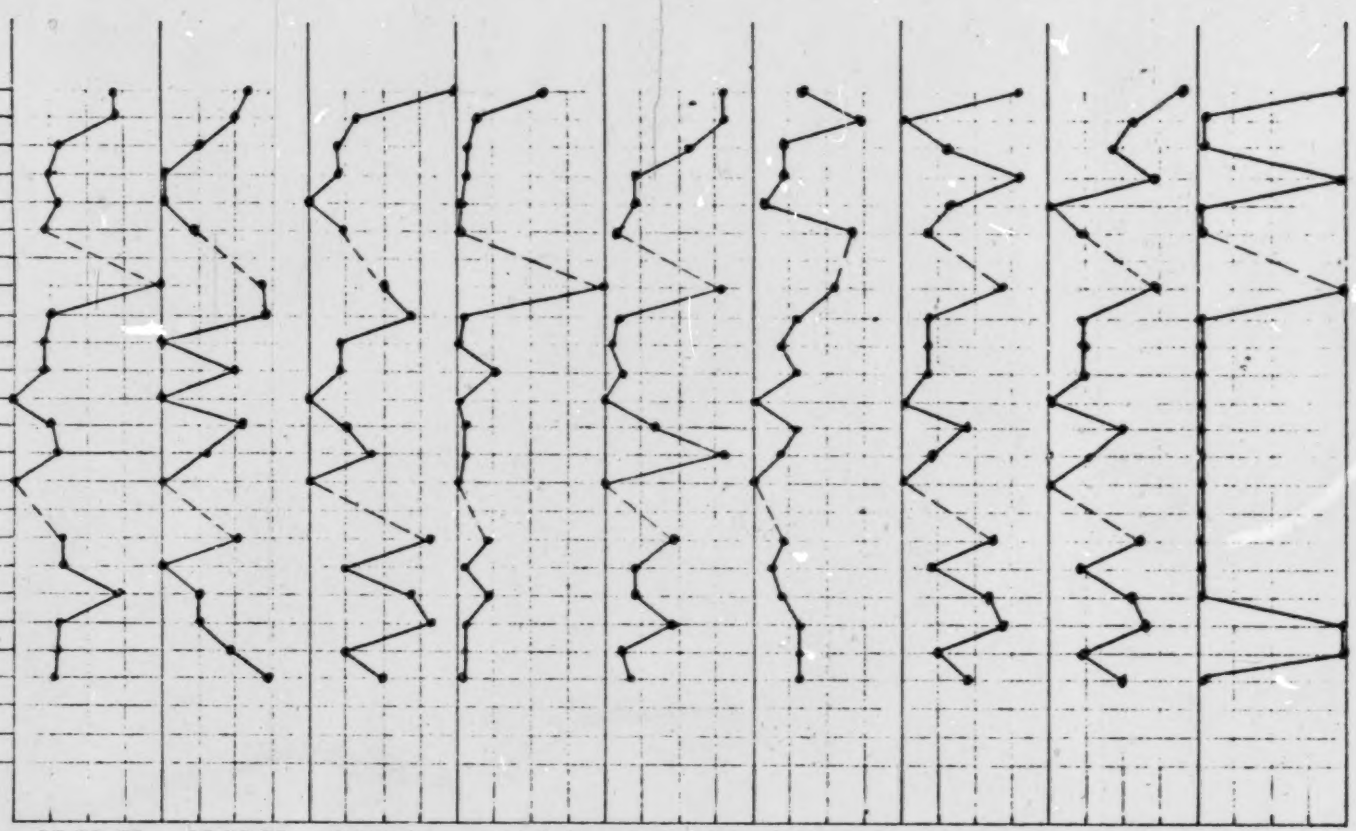

CHART 3

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

MONTHLY INDIVIDUAL PUPIL MEASUREMENT of PROGRAM OBJECTIVE

PUPIL NAME

SCHOOL

DATE JAN

AM ✓ PM

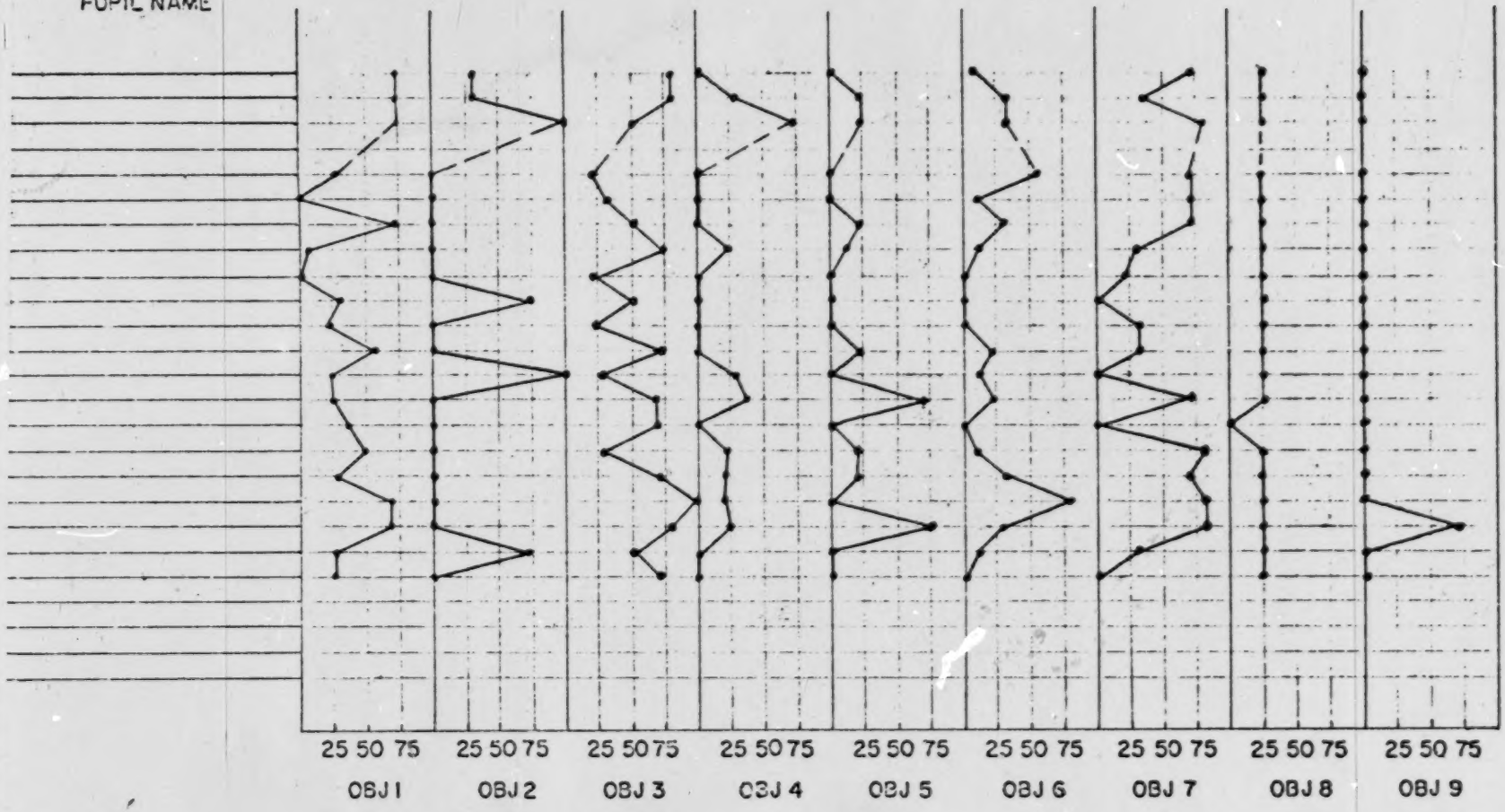

CHART 3

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

MONTHLY INDIVIDUAL PUPIL MEASUREMENT of PROGRAM OBJECTIVE

PUPIL NAME

SCHOOL

DATE JAN '7

AM ___ PM

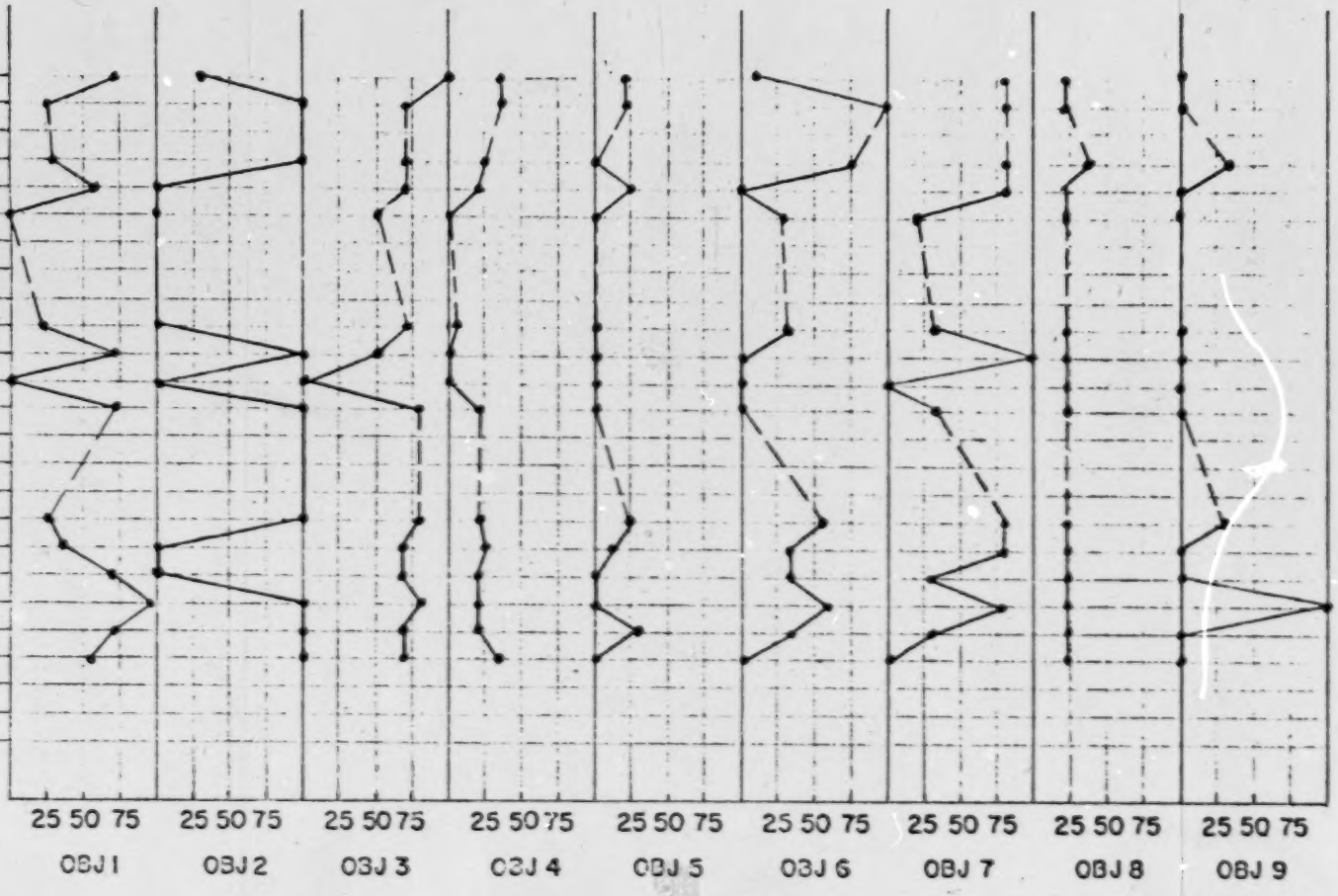

CHART 3

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

MONTHLY INDIVIDUAL PUPIL MEASUREMENT of PROGRAM OBJECTIVE

PUPIL NAME

SCHOOL

DATE 5/74

AM ✓ PM

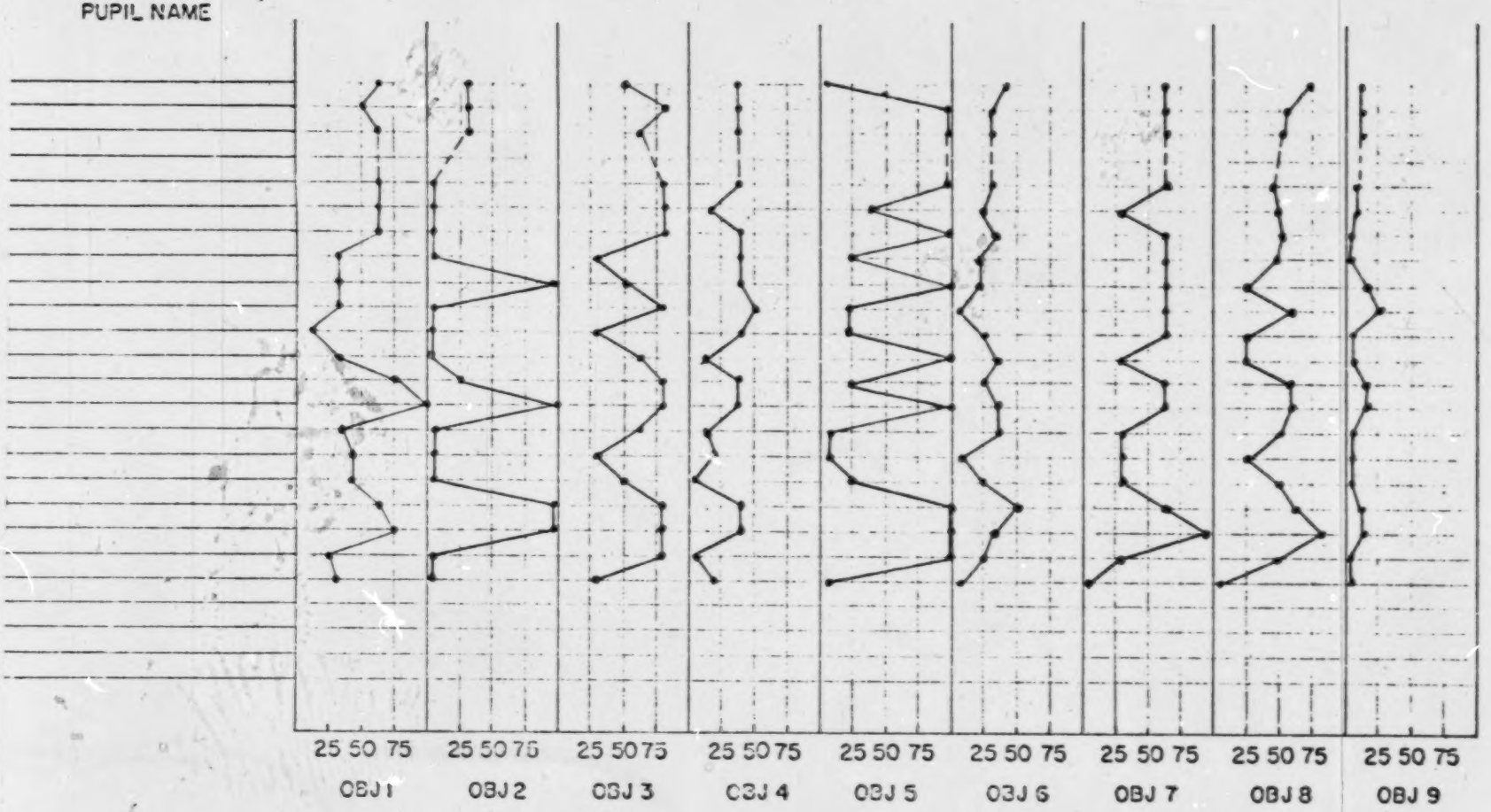

CHART 3

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

MONTHLY INDIVIDUAL PUPIL MEASUREMENT of PROGRAM OBJECTIVE

PUPIL NAME

SCHOOL

DATE 5/7

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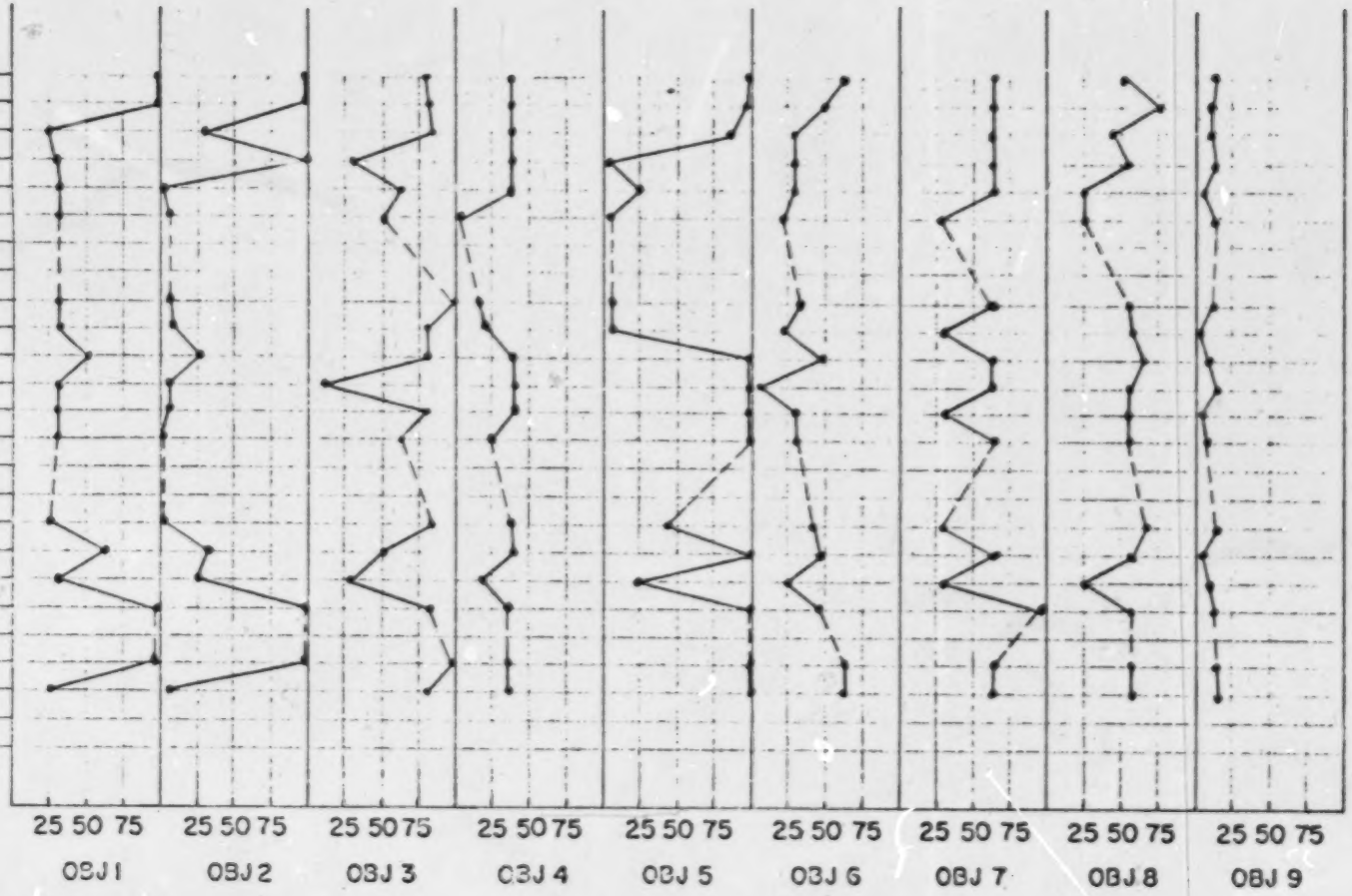


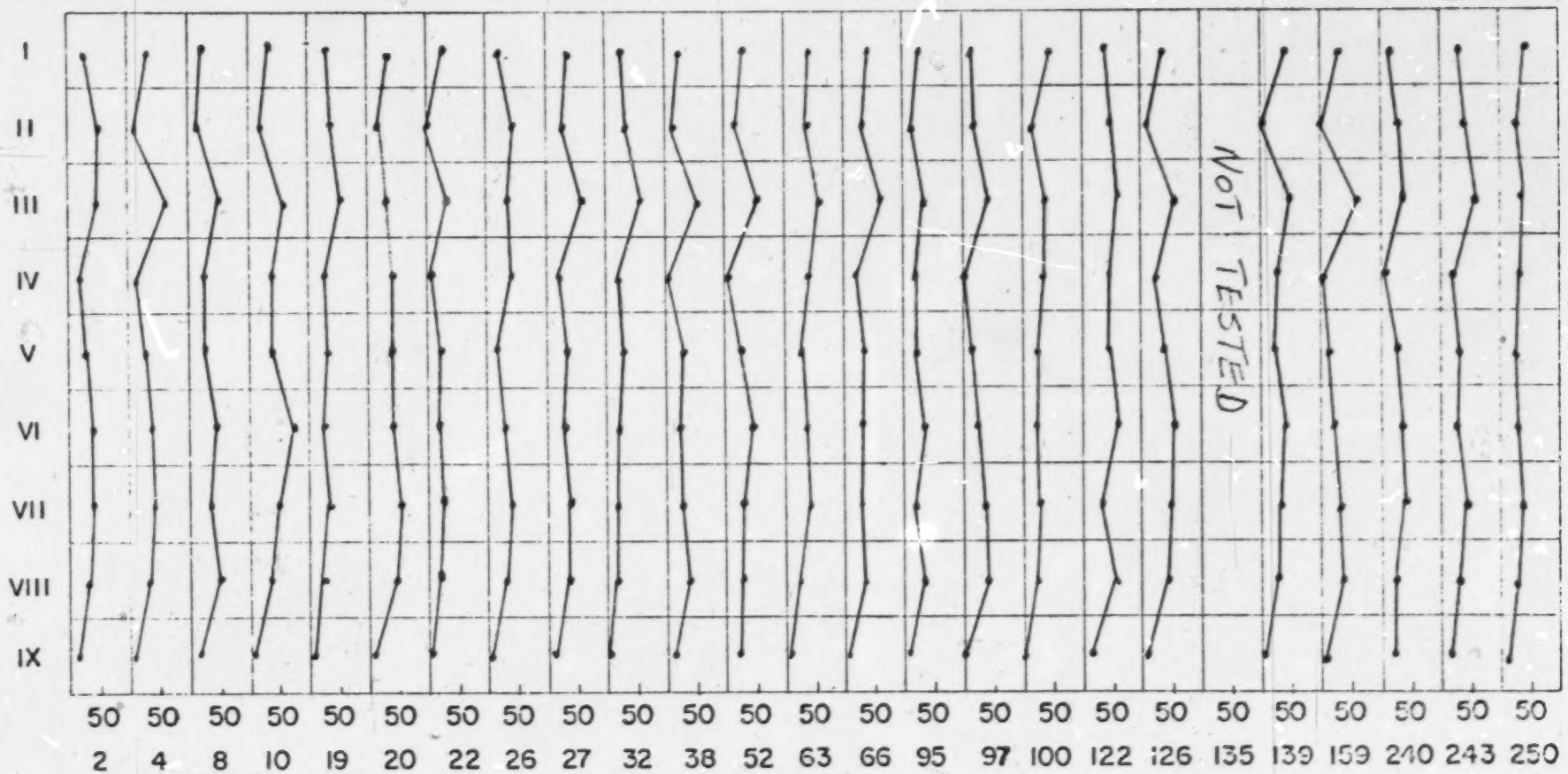
CHART 3

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973 - 1974

MEASUREMENT of PROGRAM OBJECTIVES

AVERAGE SCORES FOR SCHOOL OVER YEAR



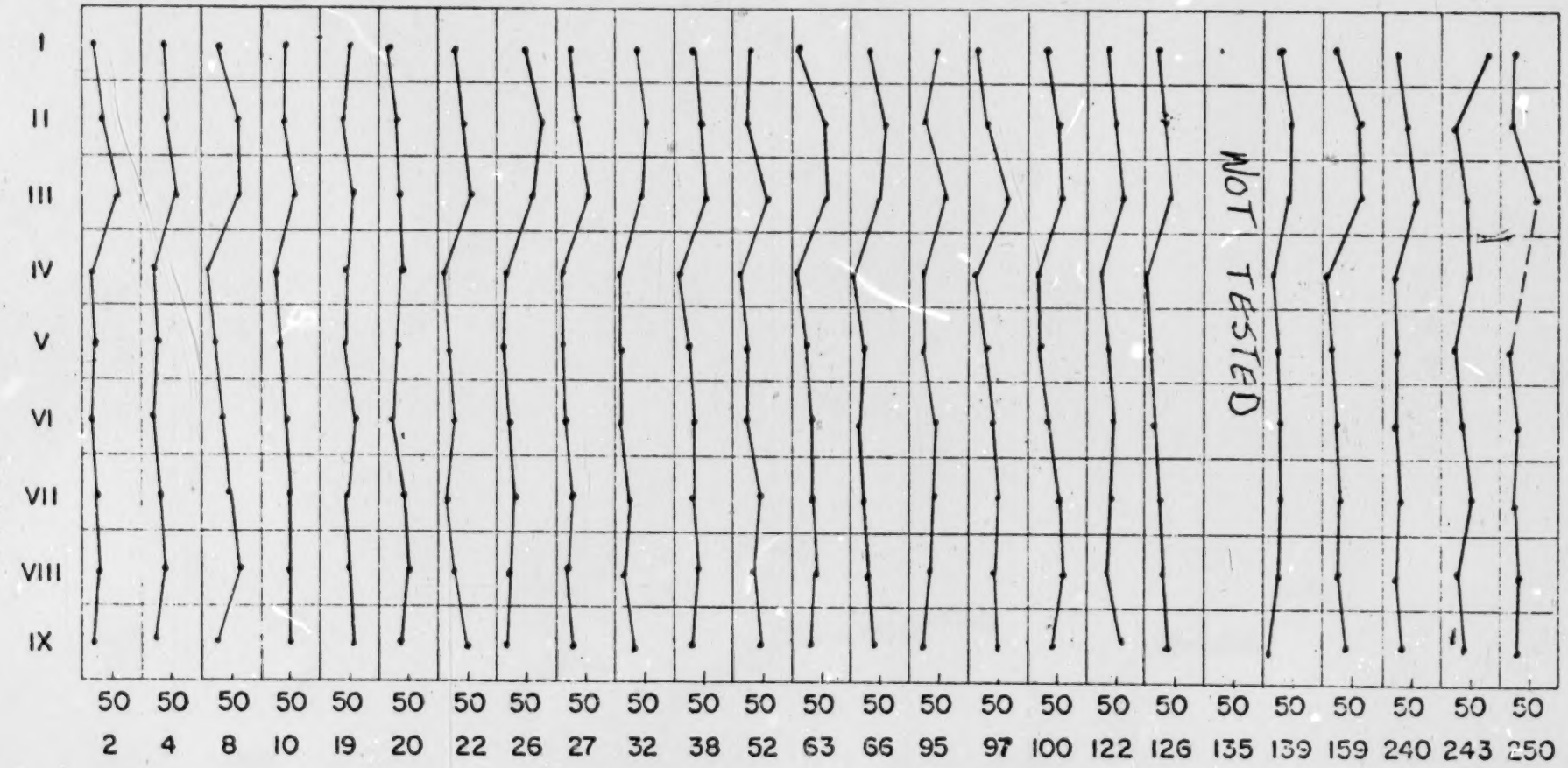
OCT 1973

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973 - 1974

MEASUREMENT of PROGRAM OBJECTIVES

AVERAGE SCORES FOR SCHOOL OVER YEAR



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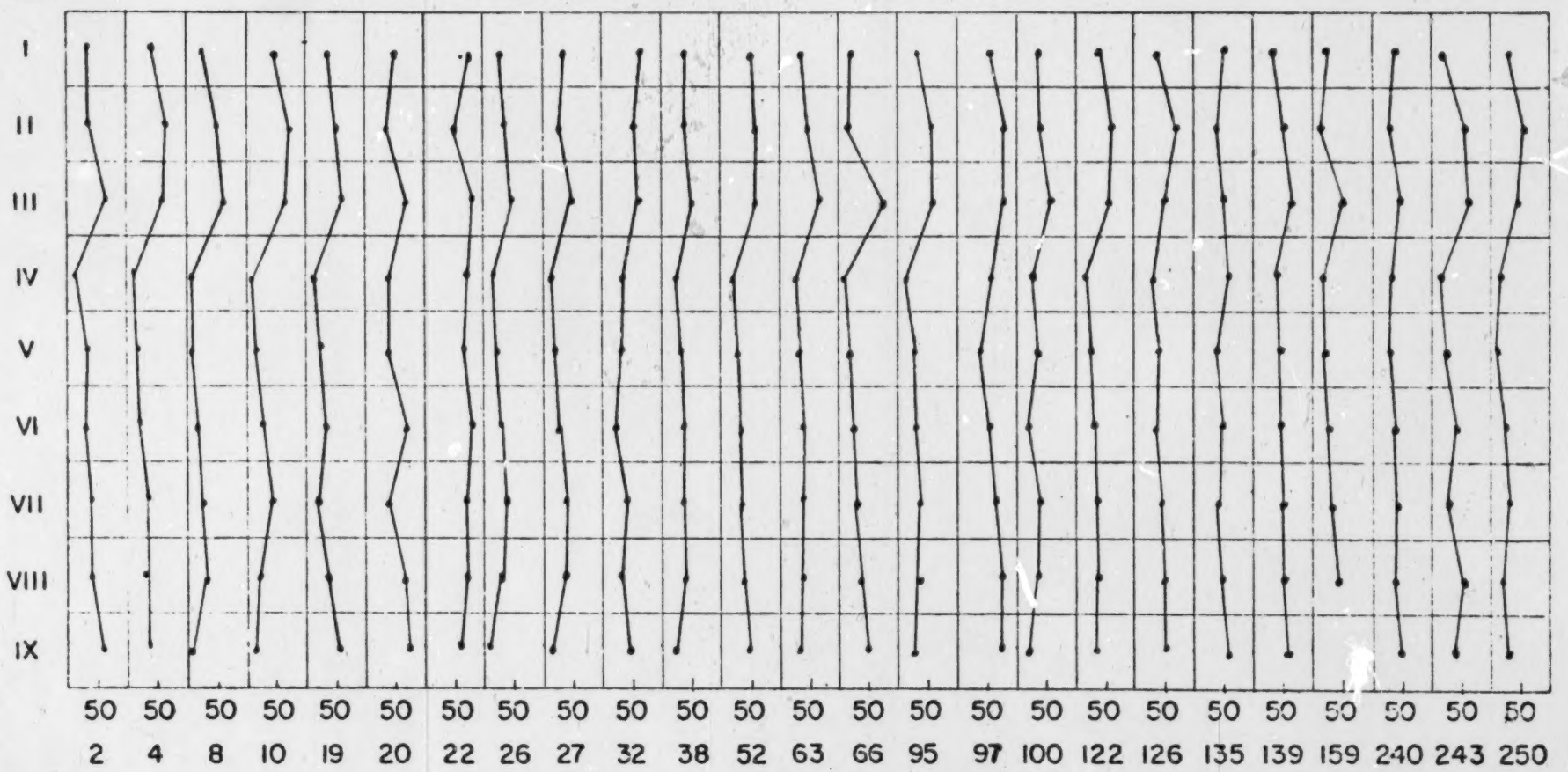
MEASUREMENT of PROGRAM OBJECTIVES
AVERAGE SCORES FOR SCHOOL OVER YEAR



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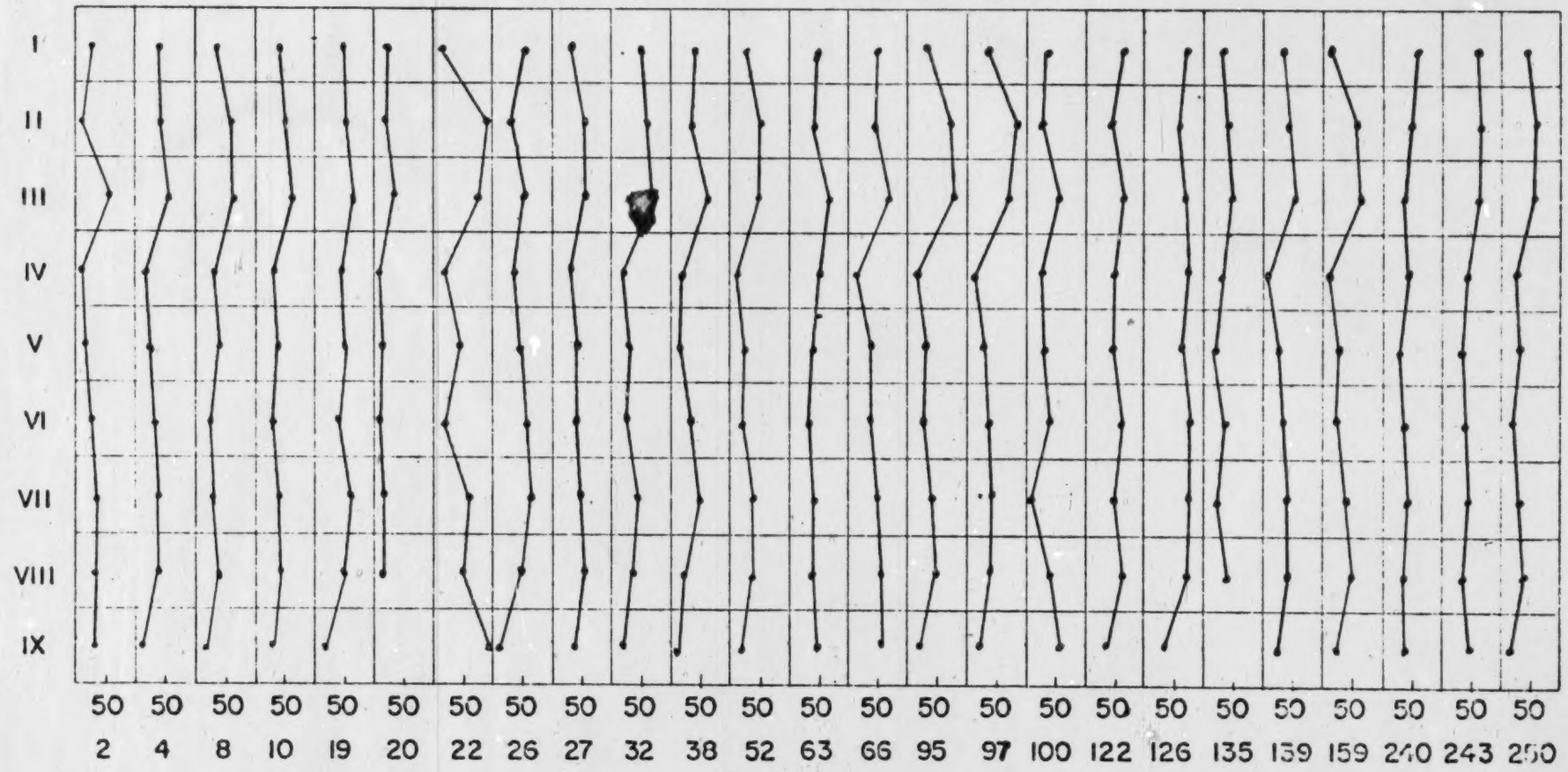
Baltimore City Public Schools 1973 - 1974

MEASUREMENT of PROGRAM OBJECTIVES

AVERAGE SCORES FOR SCHOOL OVER YEAR



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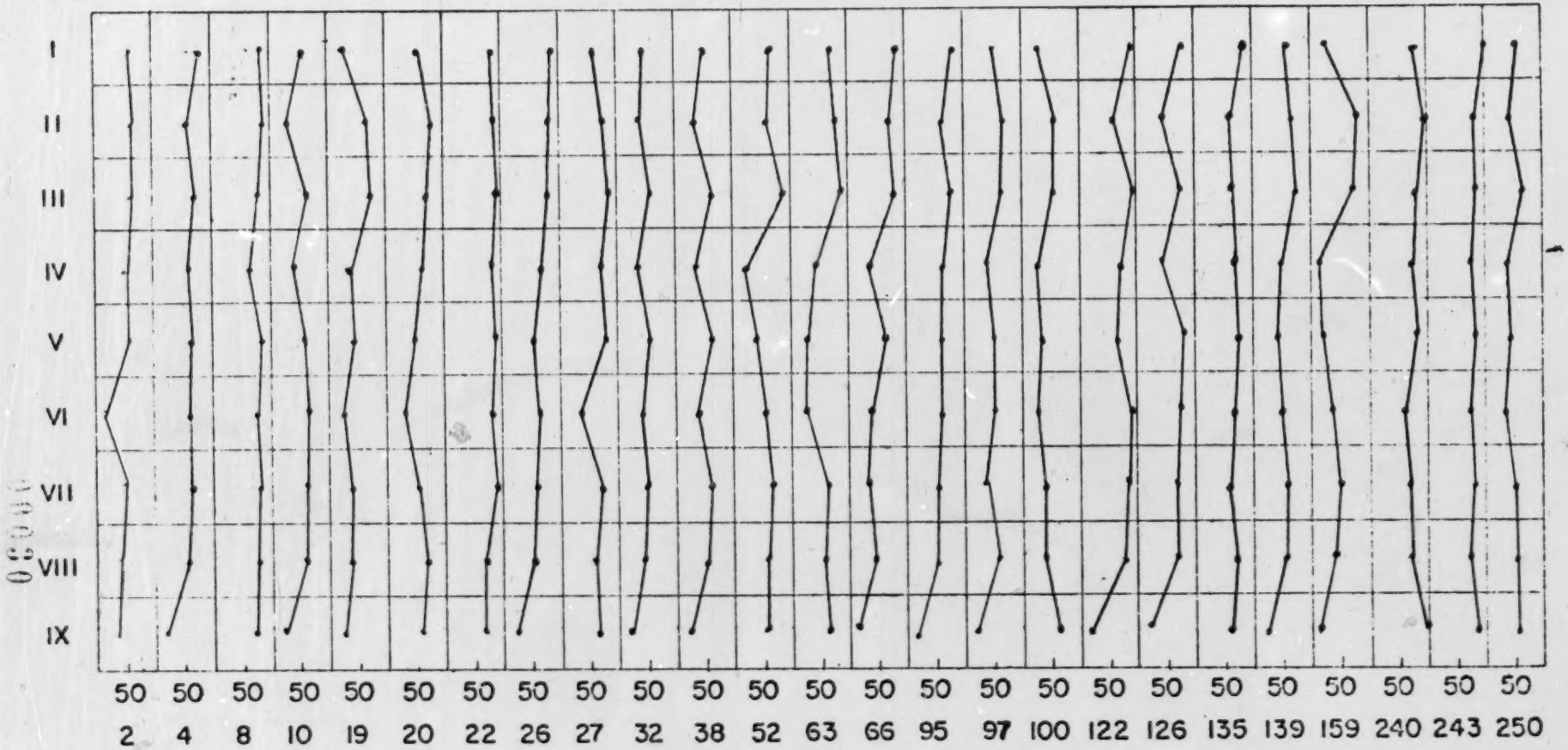
EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973 - 1974

MEASUREMENT of PROGRAM OBJECTIVES

AVERAGE SCORES FOR SCHOOL OVER YEAR



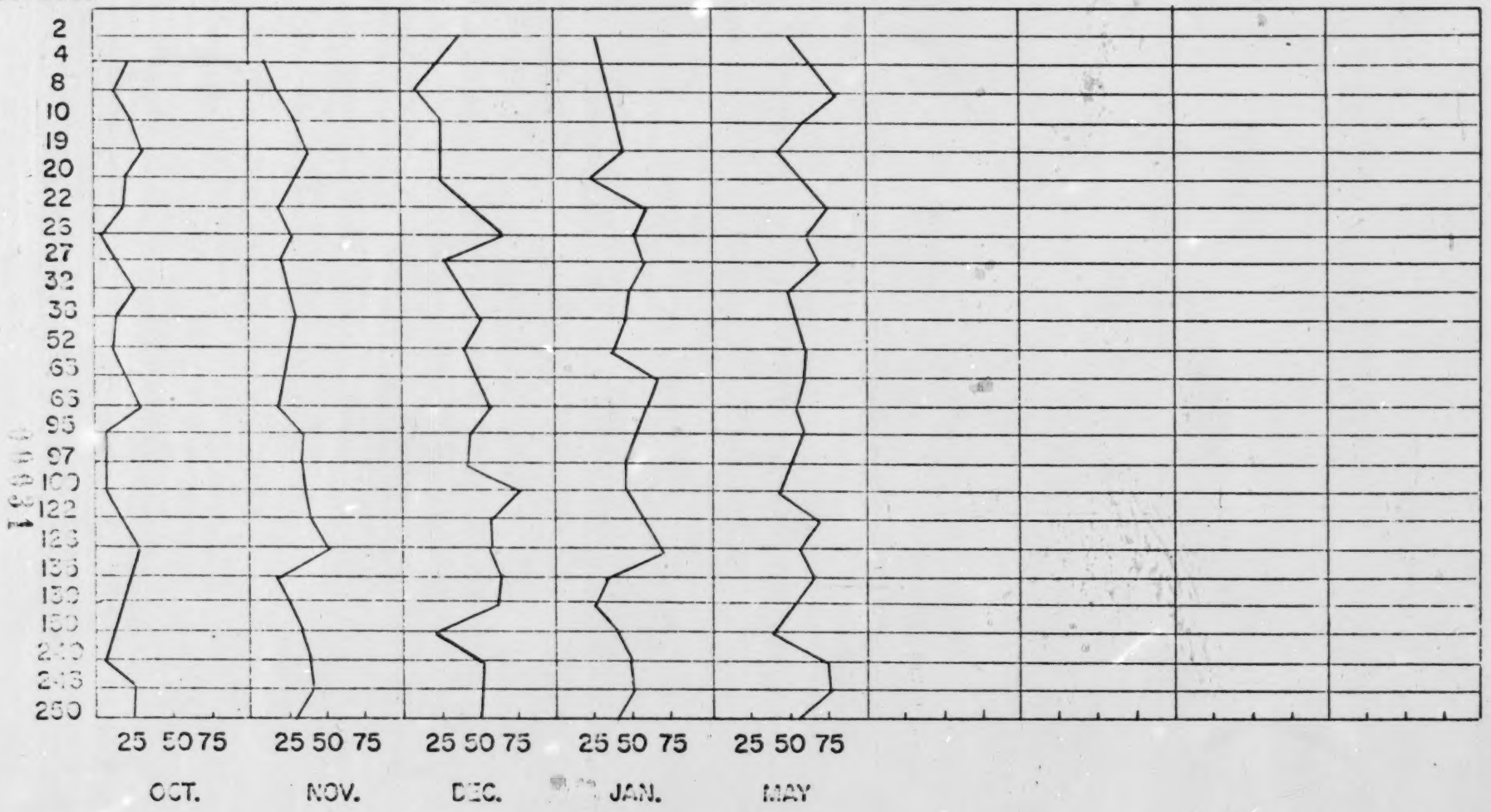
MAY 1974

EARLY ADMISSIONS PROGRAM

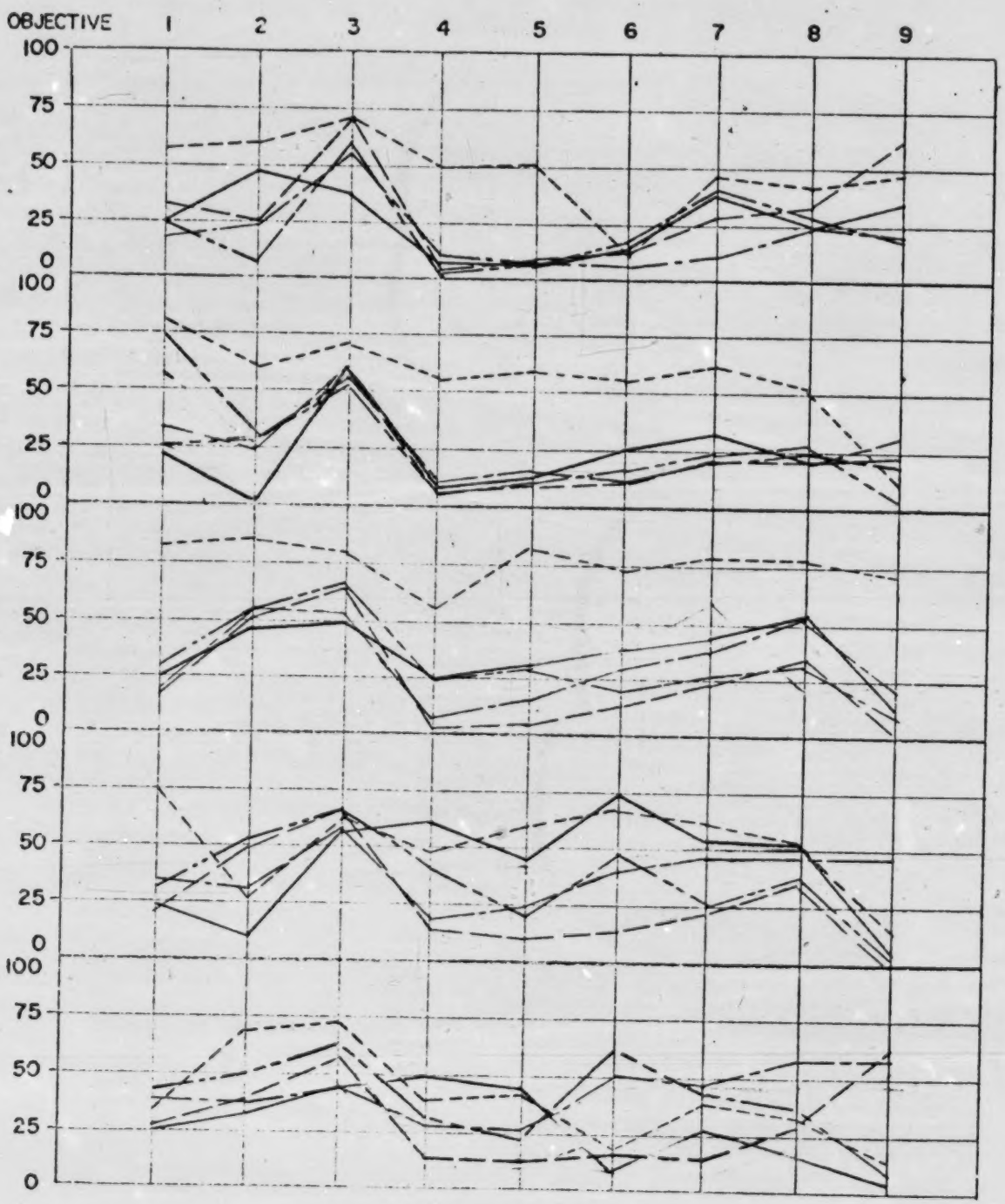
Baltimore City Public Schools 1973-1974

MEASUREMENT of PROGRAM OBJECTIVES

AVERAGE SCORES FOR SCHOOL OVER YEAR



OBSERVING ACHIEVEMENT WITHIN A SCHOOL YEAR OF ESAP SCHOOLS 1973-74



LEGEND

OCT ——————

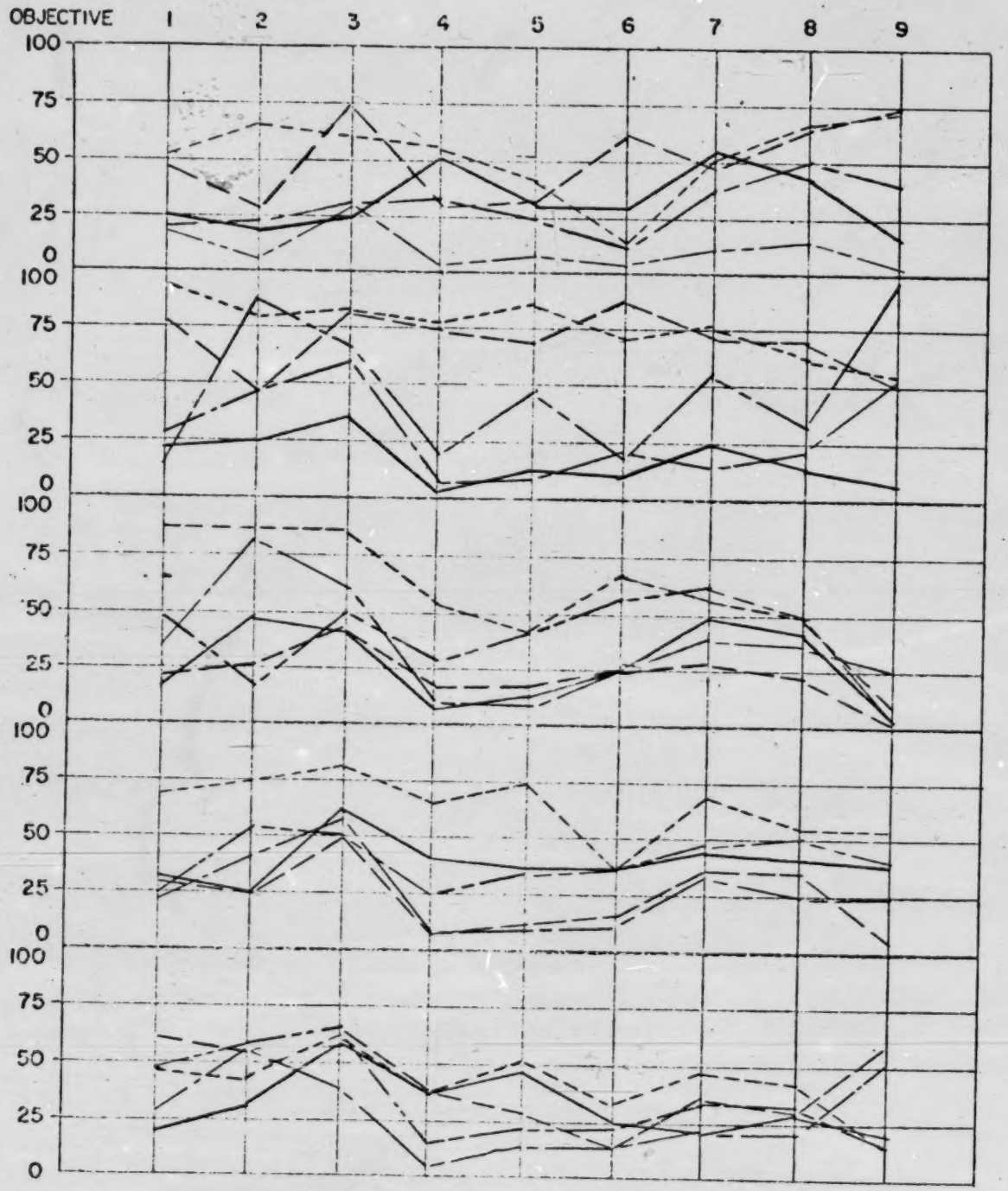
NOV – – – – –

DEC – · – · –

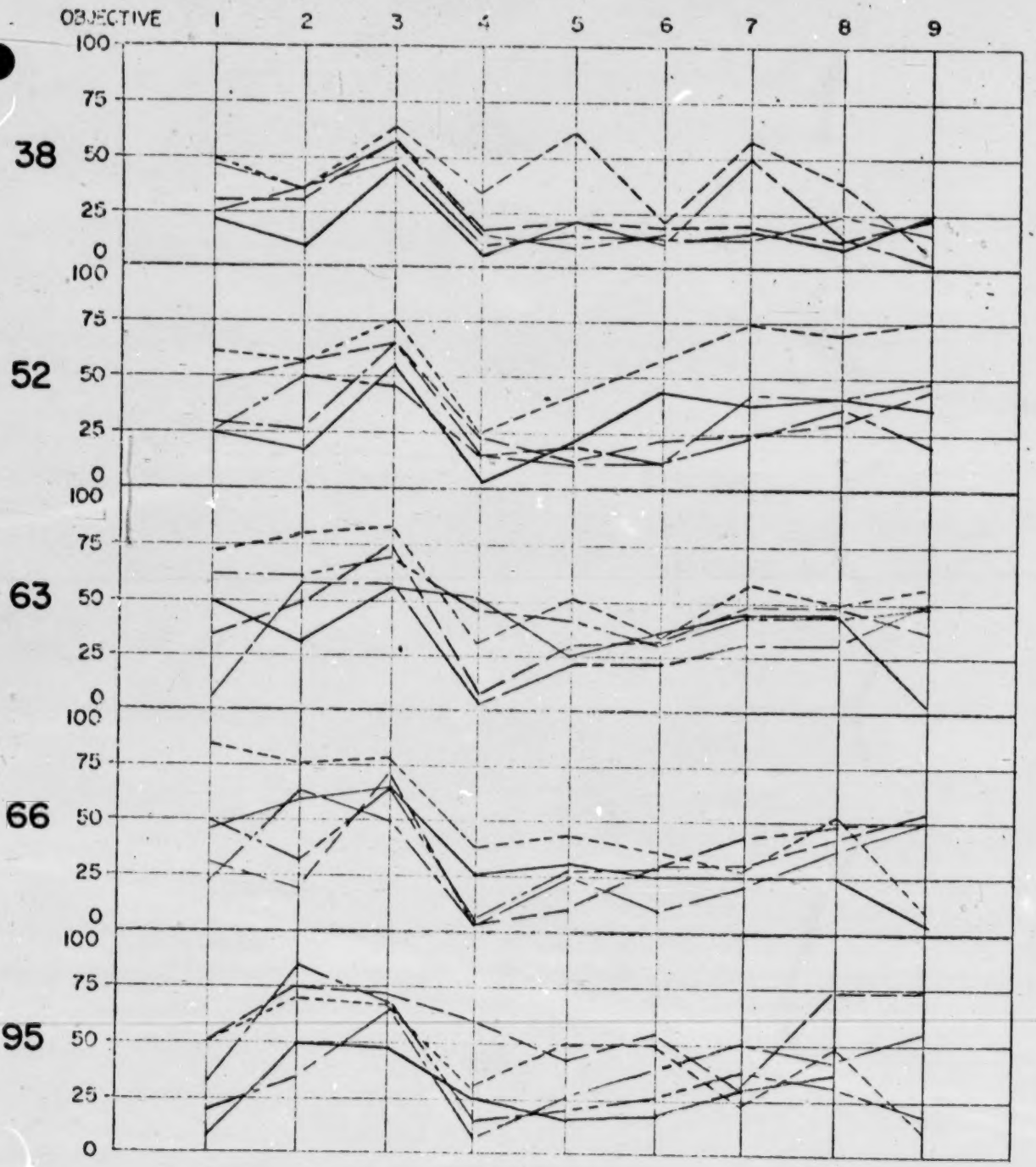
JAN – · · – · · –

MAY – – – – – –

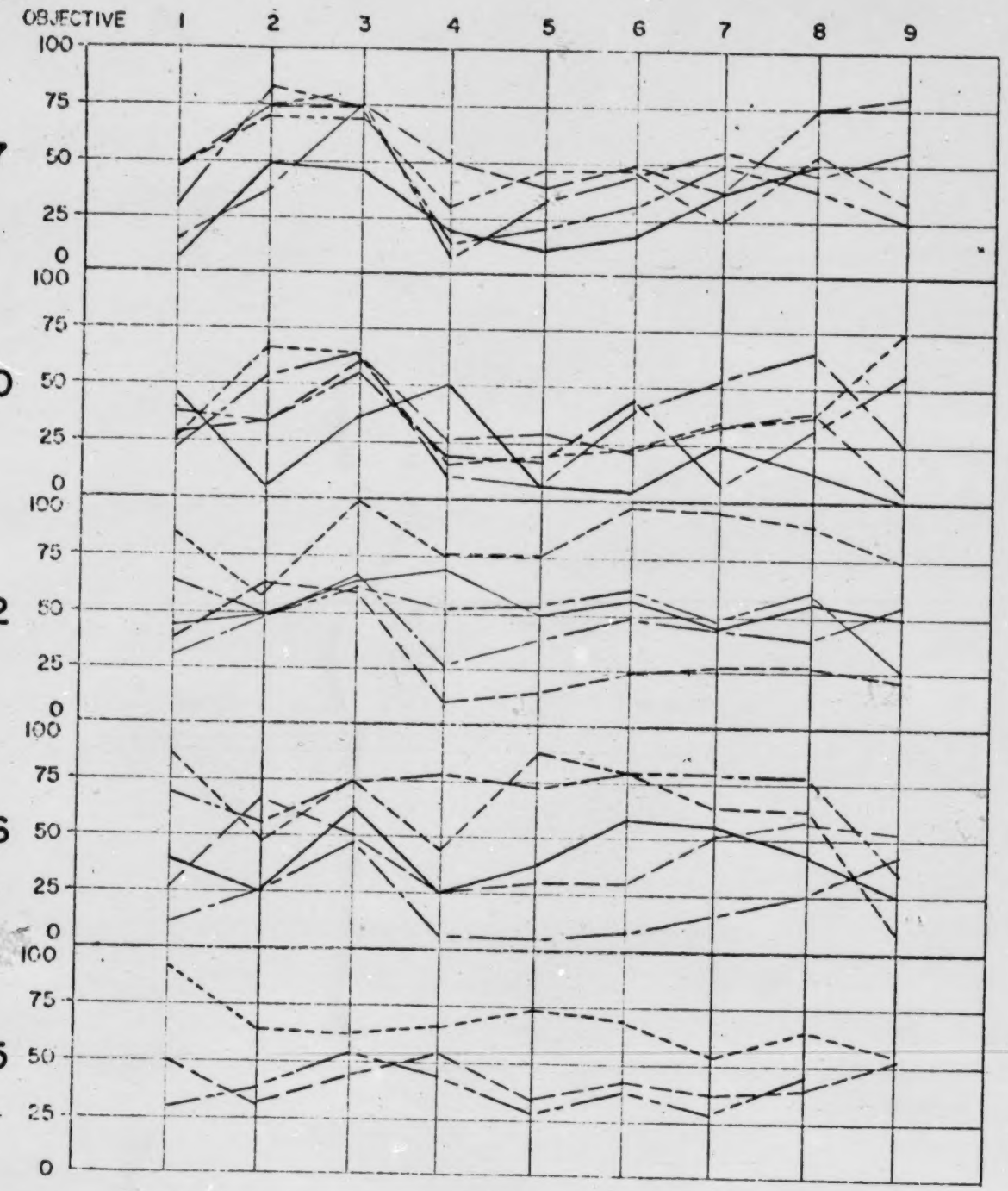
OBSERVING ACHIEVEMENT WITHIN A SCHOOL YEAR OF ESAP SCHOOLS
1973-74



OBSERVING ACHIEVEMENT WITHIN A SCHOOL YEAR OF ESAP SCHOOLS
1973-74



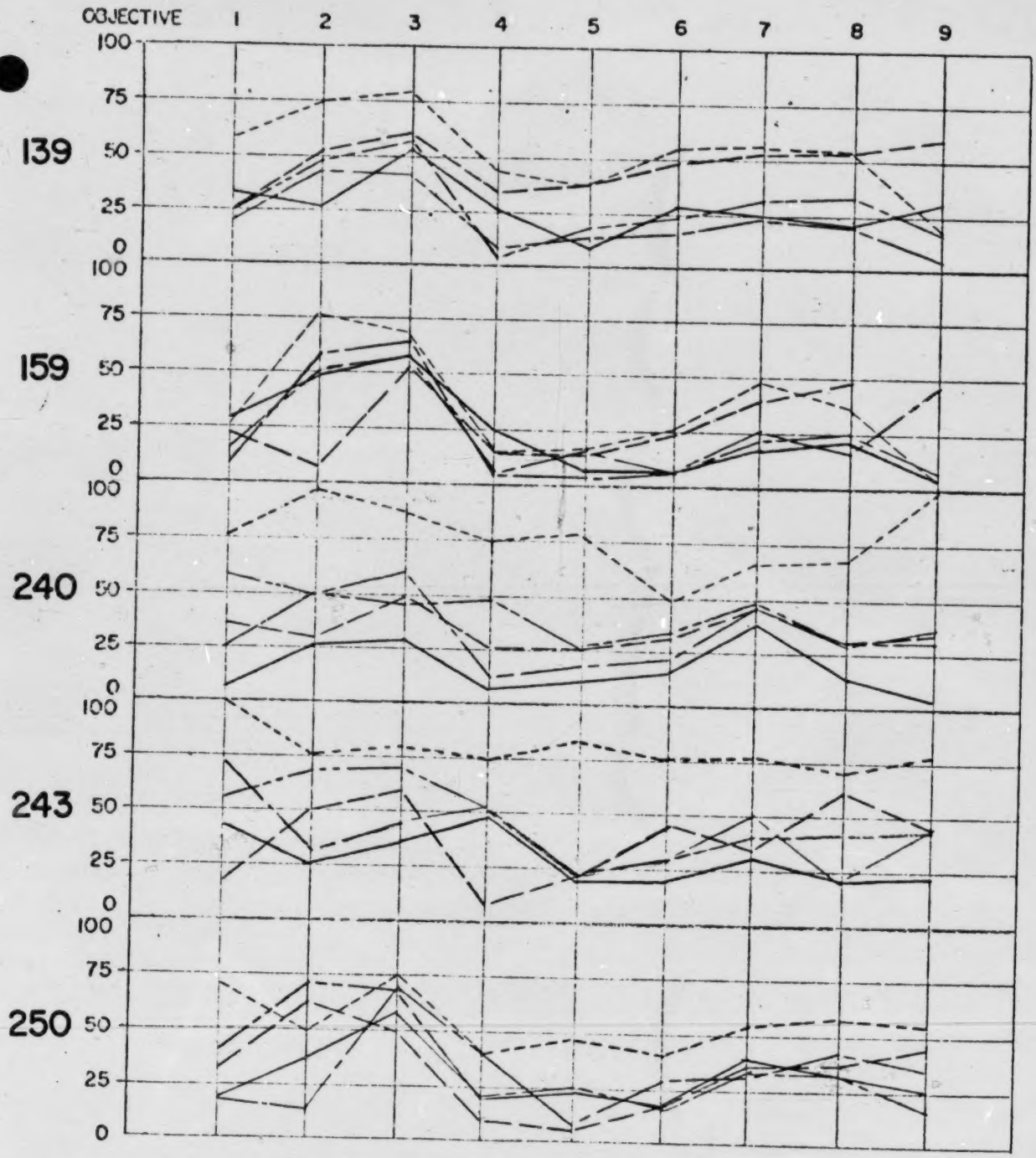
OBSERVING ACHIEVEMENT WITHIN A SCHOOL YEAR OF ESAP SCHOOLS 1973-74



LEGEND

OCT ————
NOV ————
DEC - - - - -
JAN — — — —
MAY ————

OBSERVING ACHIEVEMENT WITHIN A SCHOOL YEAR OF ESAP SCHOOLS
1973-74



LEGEND

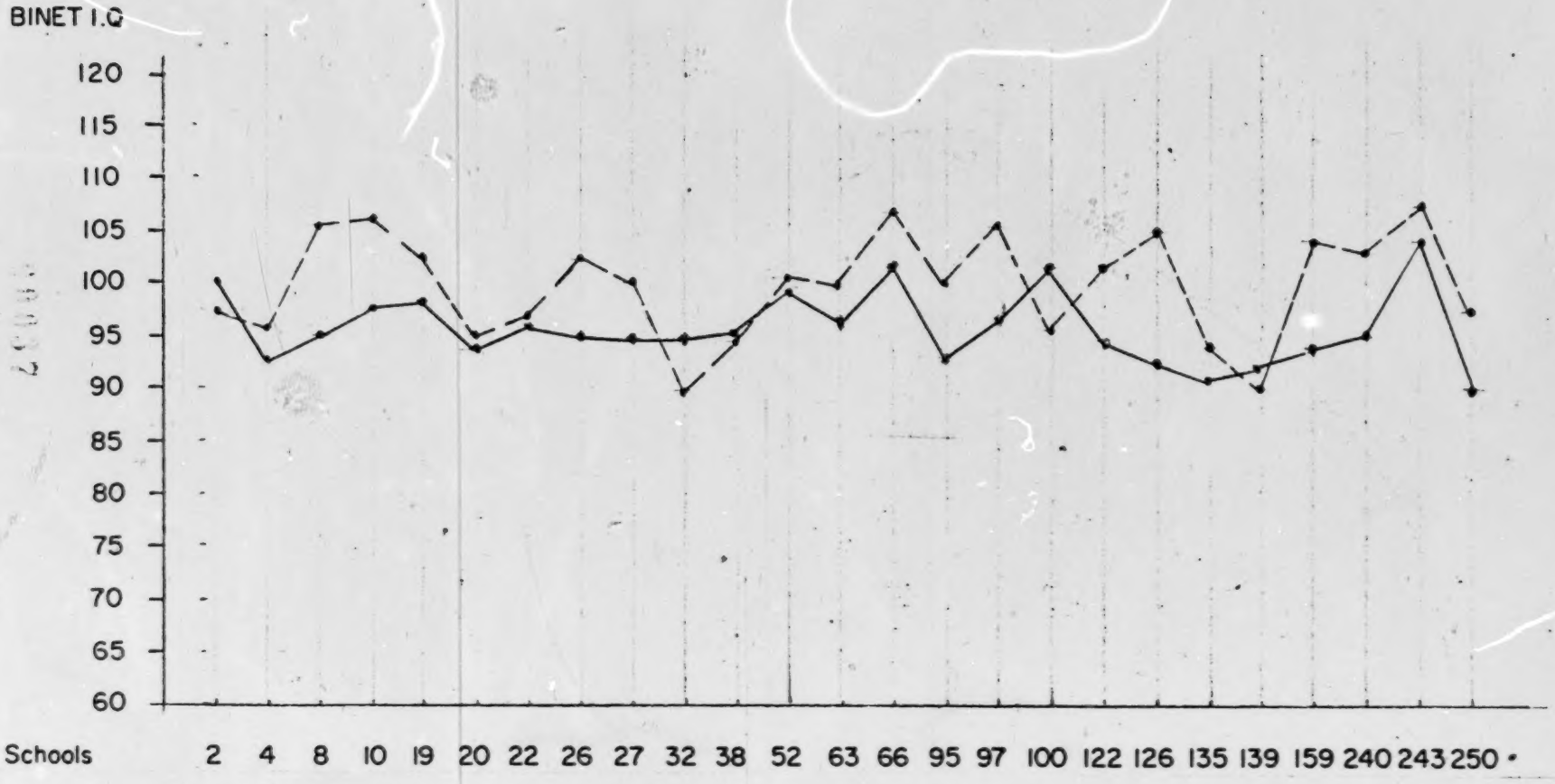
OCT ----------
NOV ——— ———
DEC --- — ---
JAN ——— — ———
MAY ———— ————

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

MEASURING GROWTH via STANFORD BINET (Short form)

(by School)



OCTOBER 1973 (PRE TEST) ———

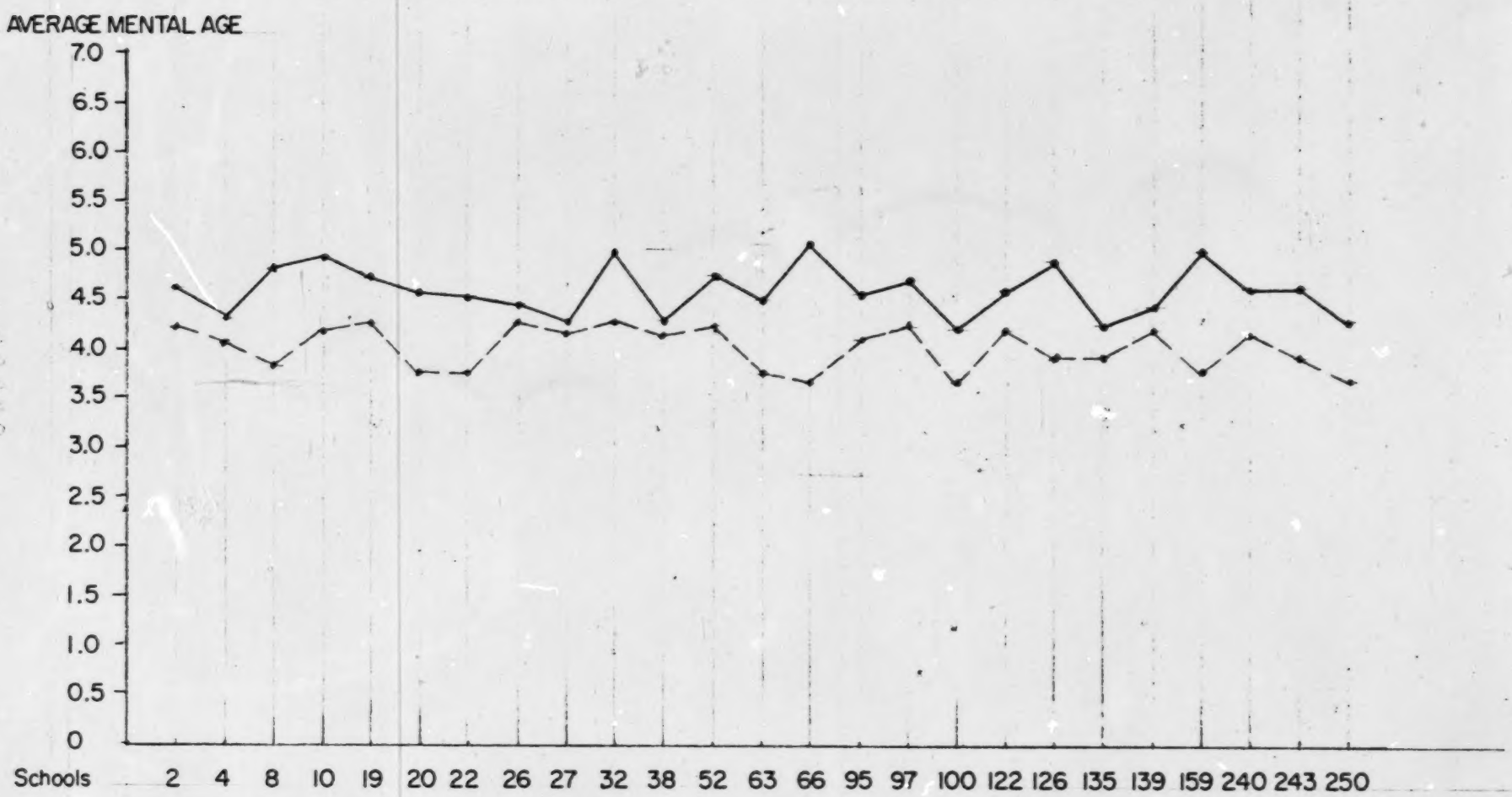
JUNE 1974 (POST TEST) — — —

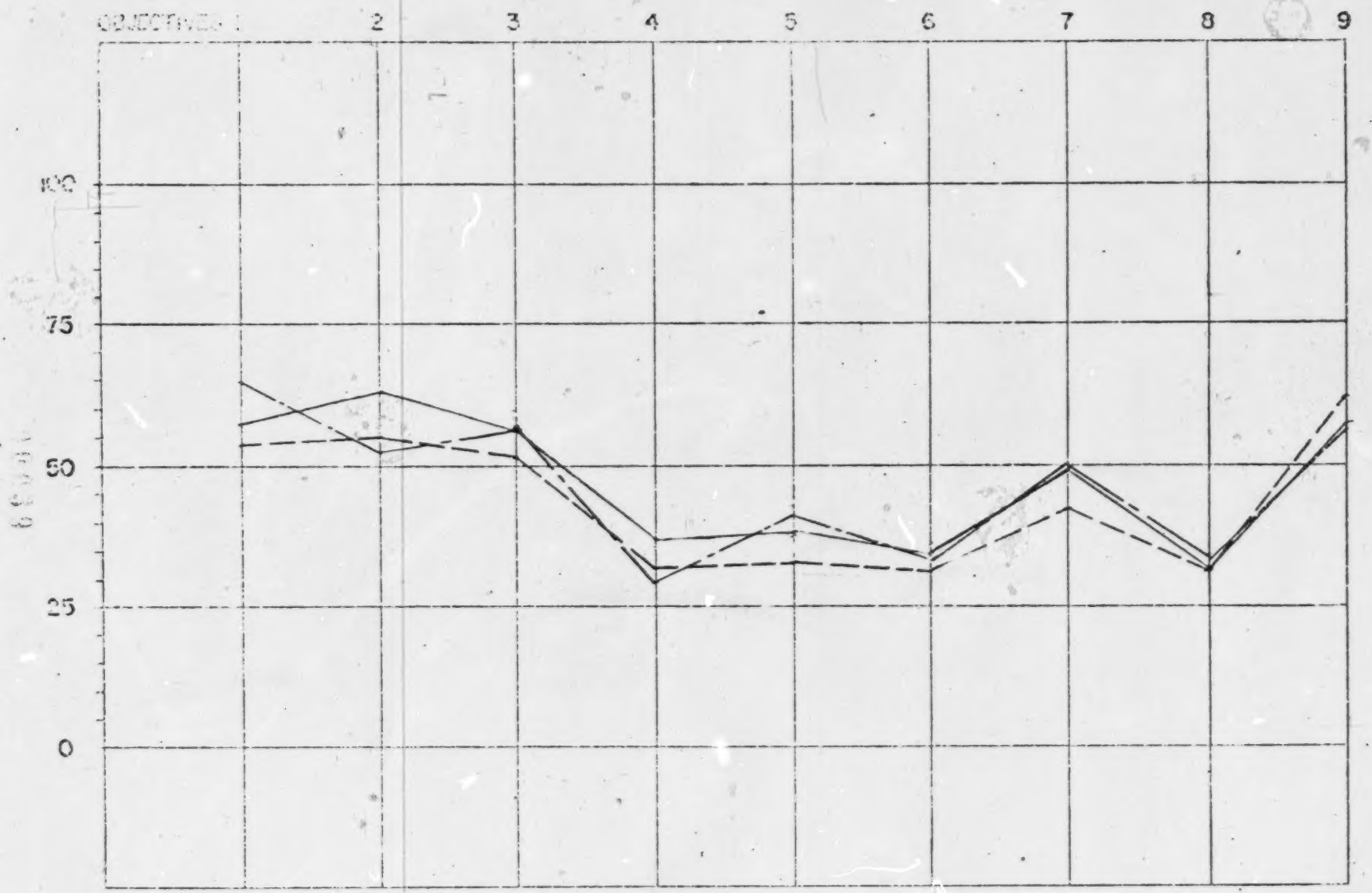
1973 AVERAGE = 96.6
1974 AVERAGE = 100.21

EARLY ADMISSIONS PROGRAM

Baltimore City Public Schools 1973-1974

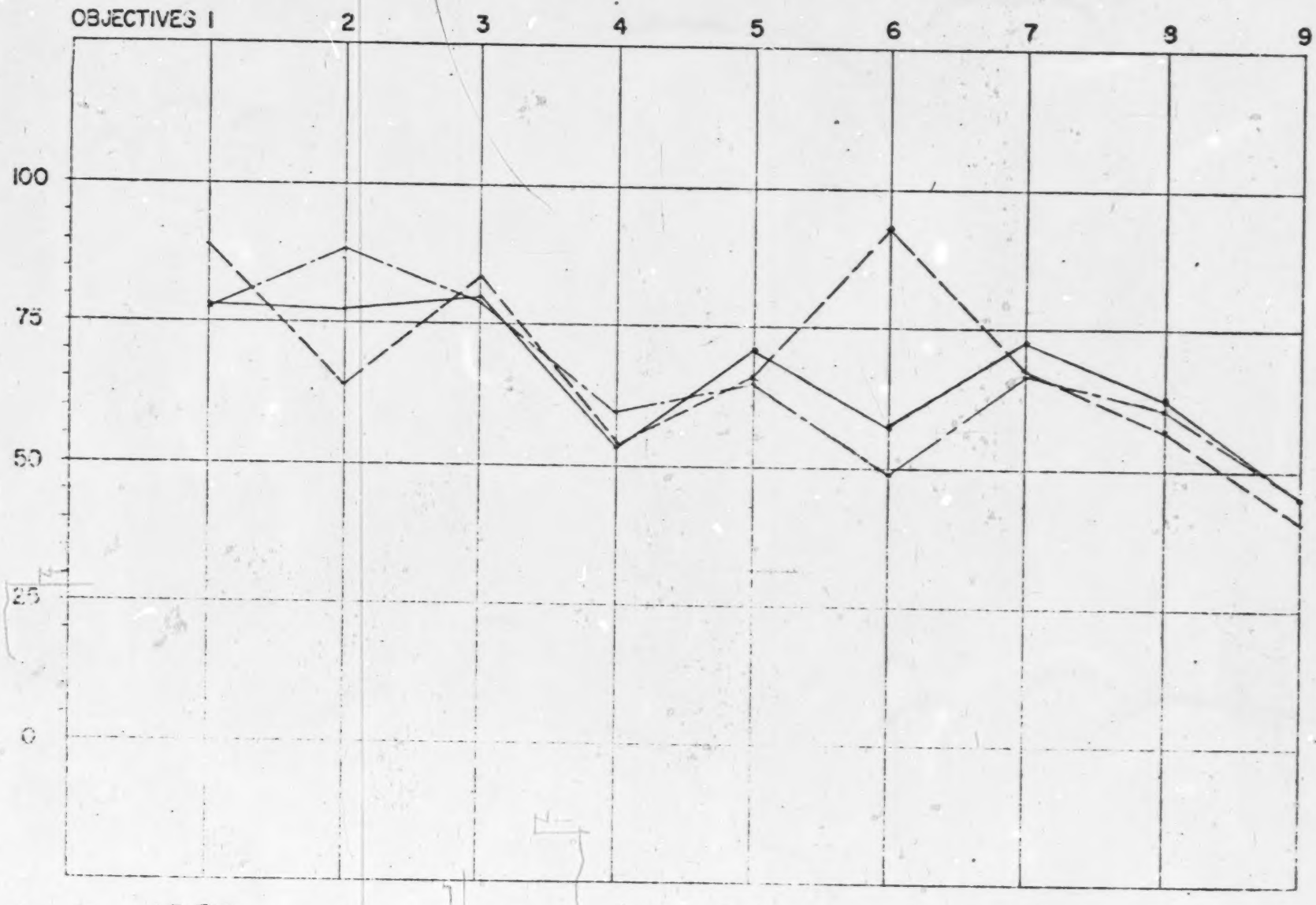
GAINS SHOWING COMPUTING PEM/BINET MENTAL AGES





OCTOBER 1973

SOCIAL and ACHIEVEMENT RELATIONSHIPS



LEGEND

---1 Parent in home

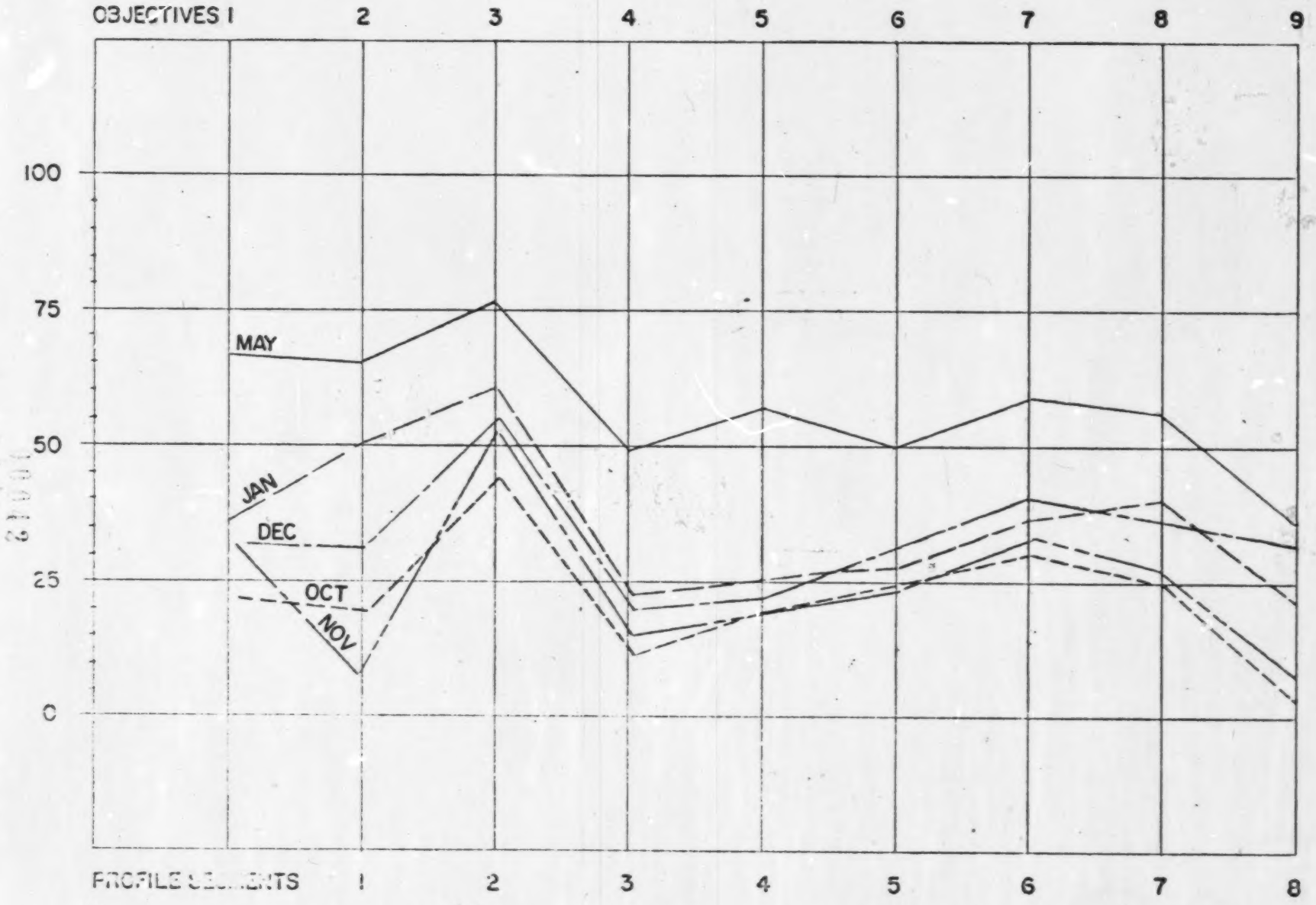
—— 2 Parents in home

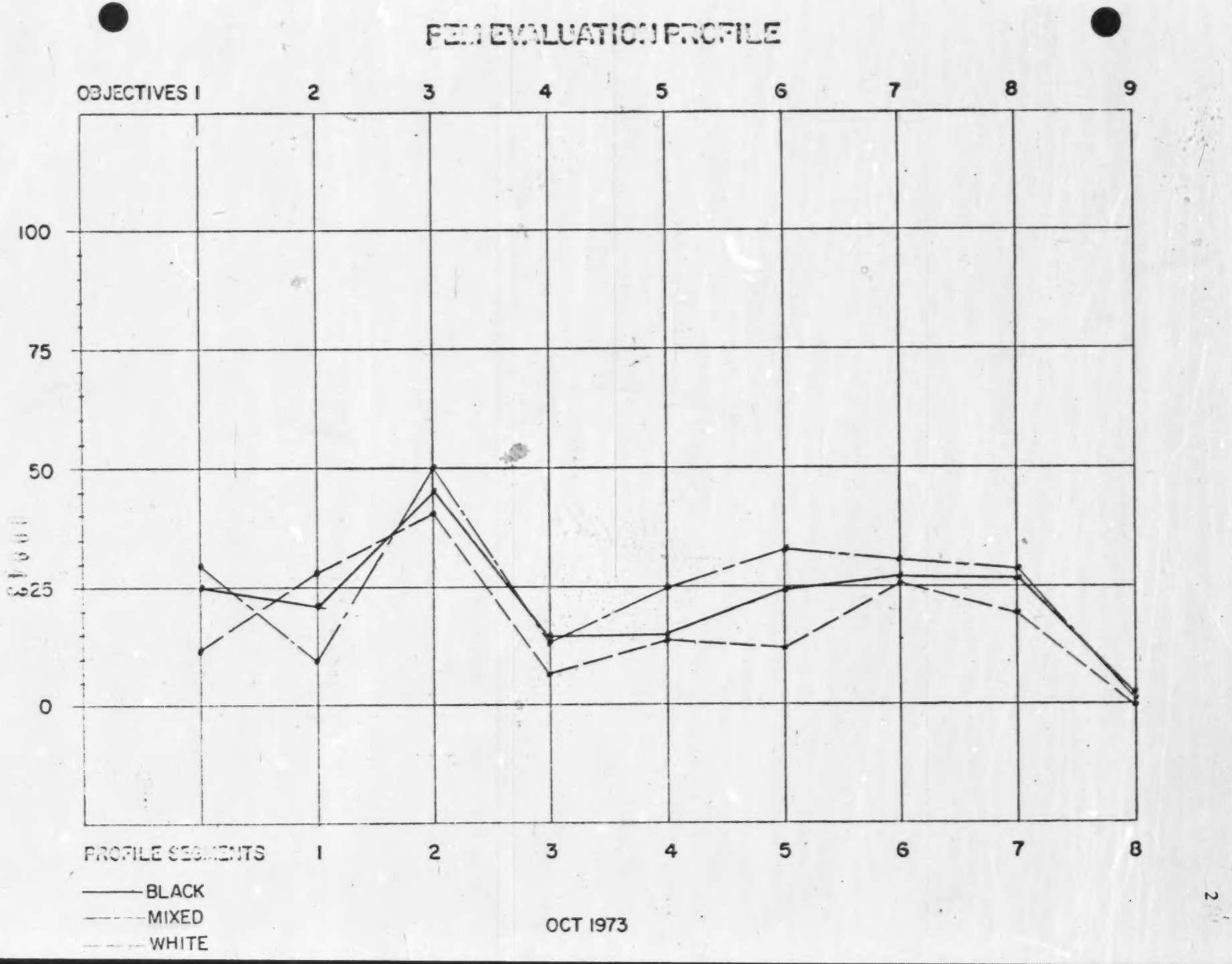
---Guardian

MAY 1974

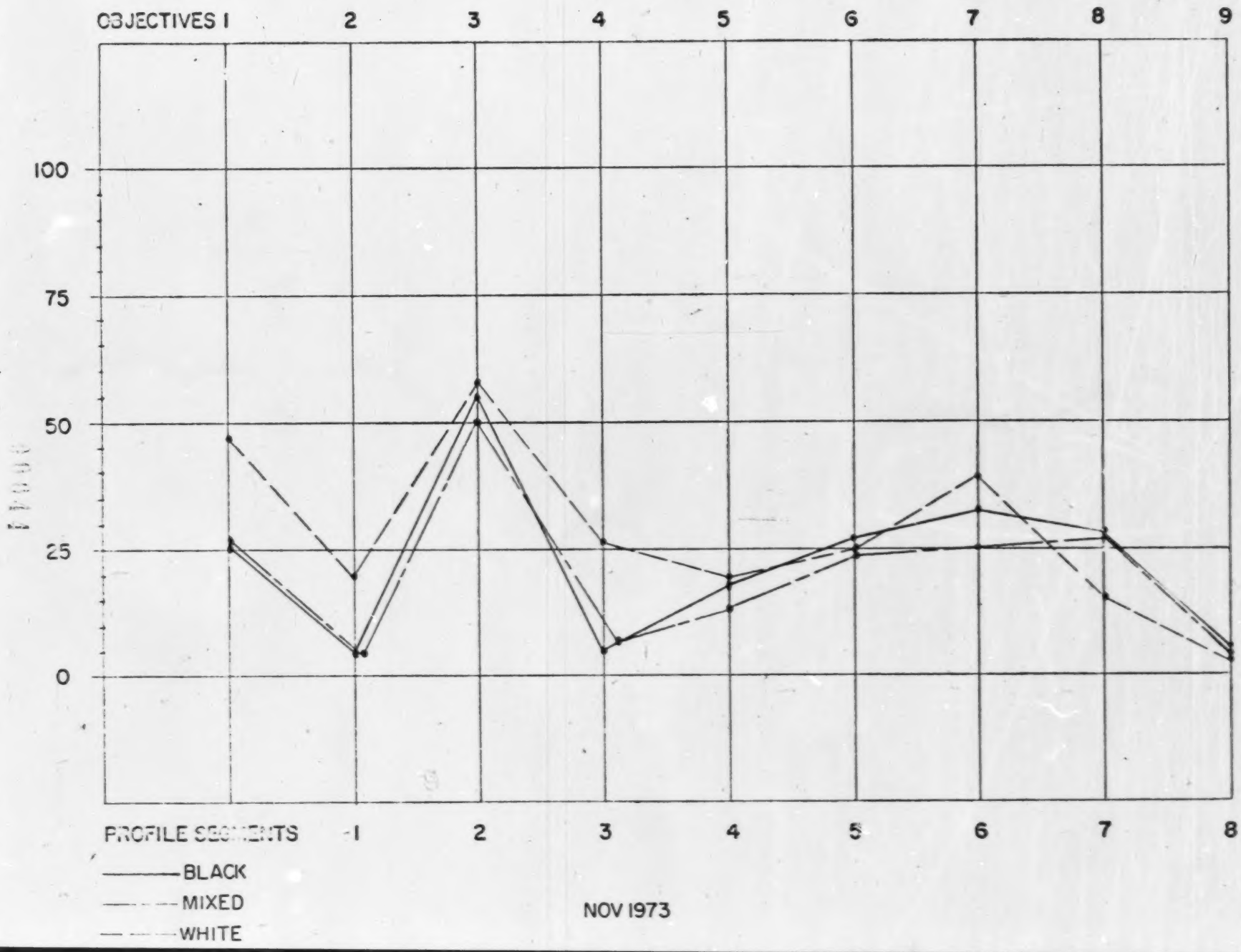
APPENDIX B

FEM EVALUATION PROFILE



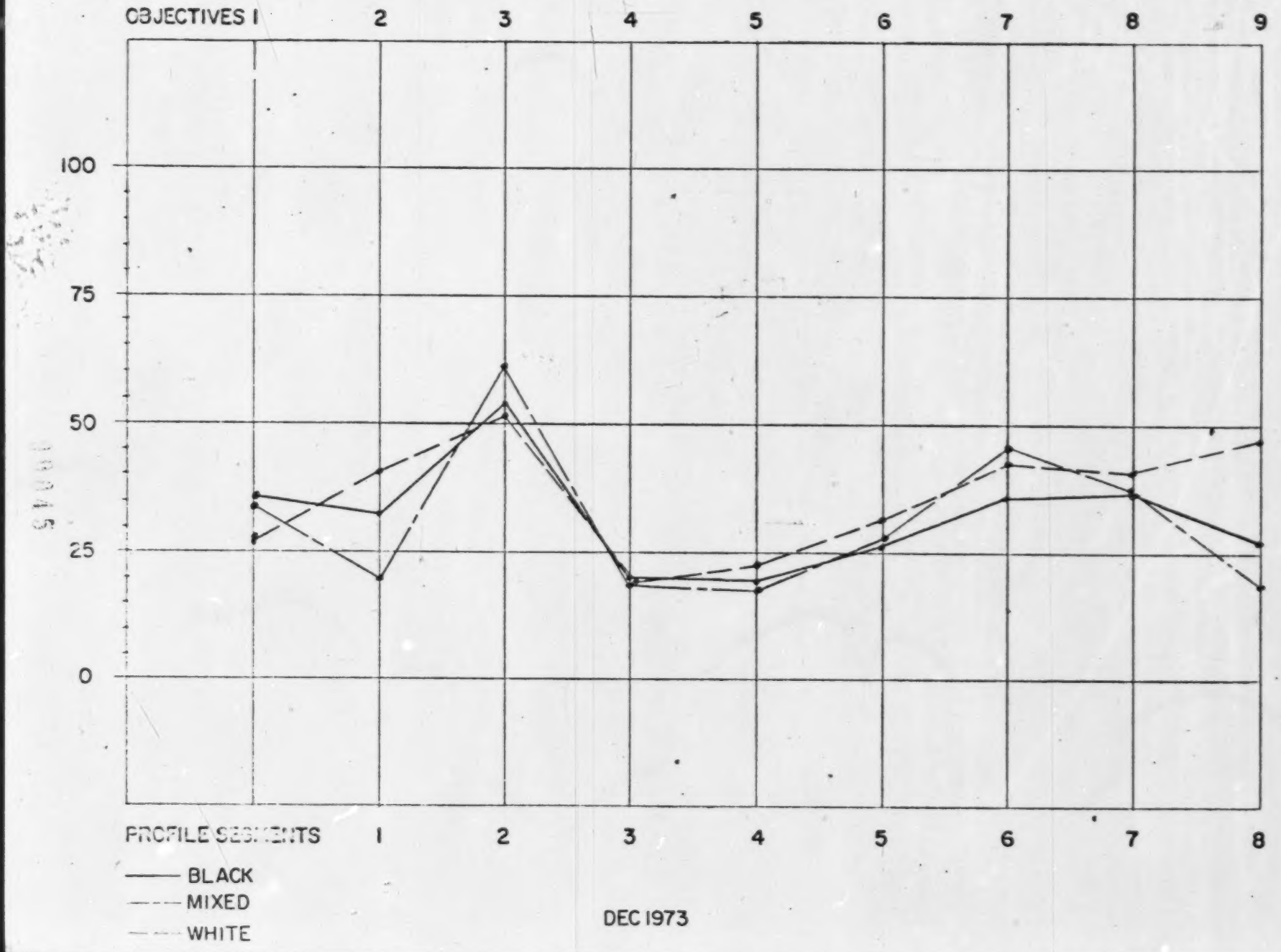

PEM EVALUATION PROFILE
OBJECTIVES 1 2 3 4 5 6 7 8 9
100
75
50
25
0
PROFILE SEGMENTS 1 2 3 4 5 6 7 8
BLACK
MIXED
WHITE
OCT 1973

FILM EVALUATION PROFILE

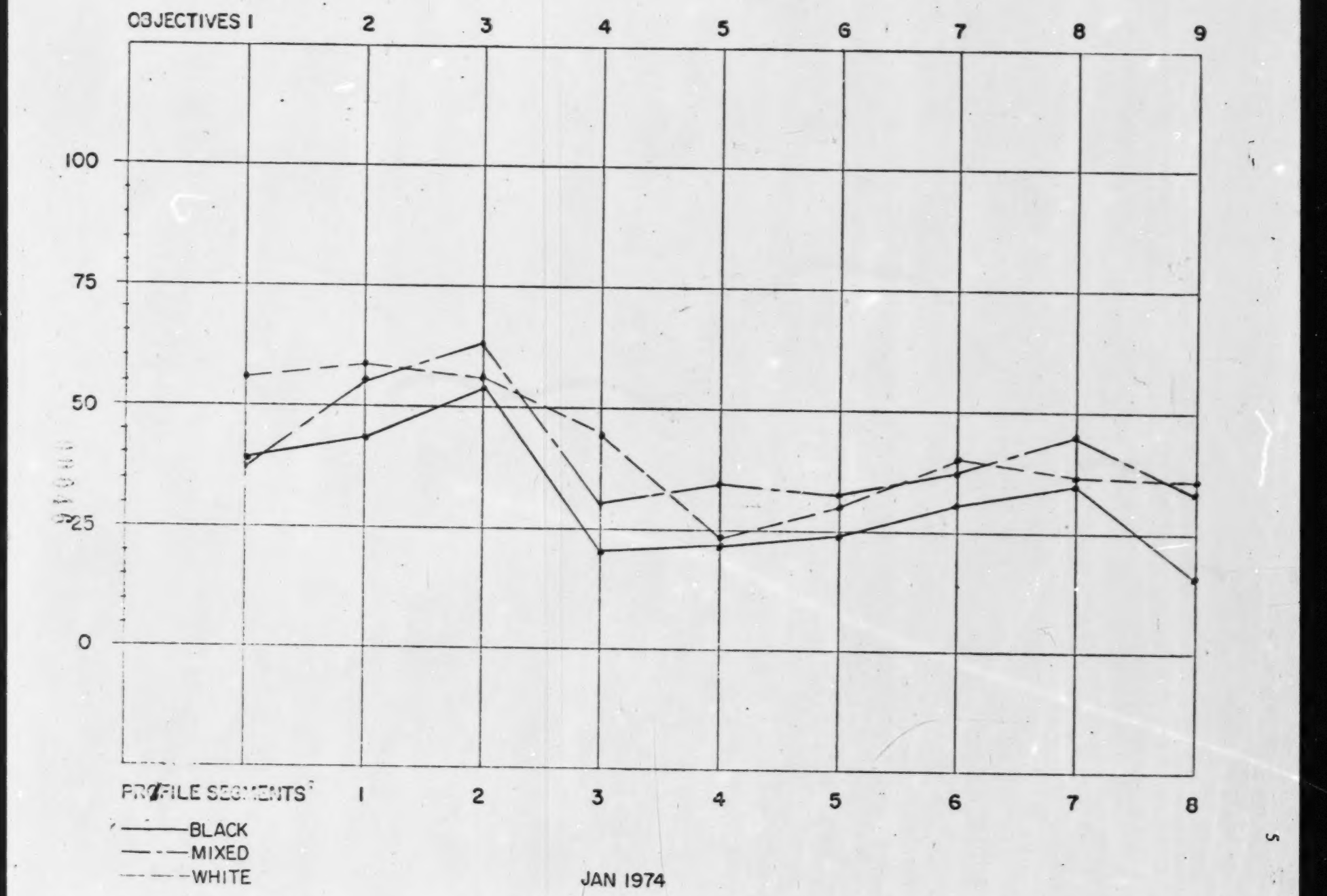


NOV 1973

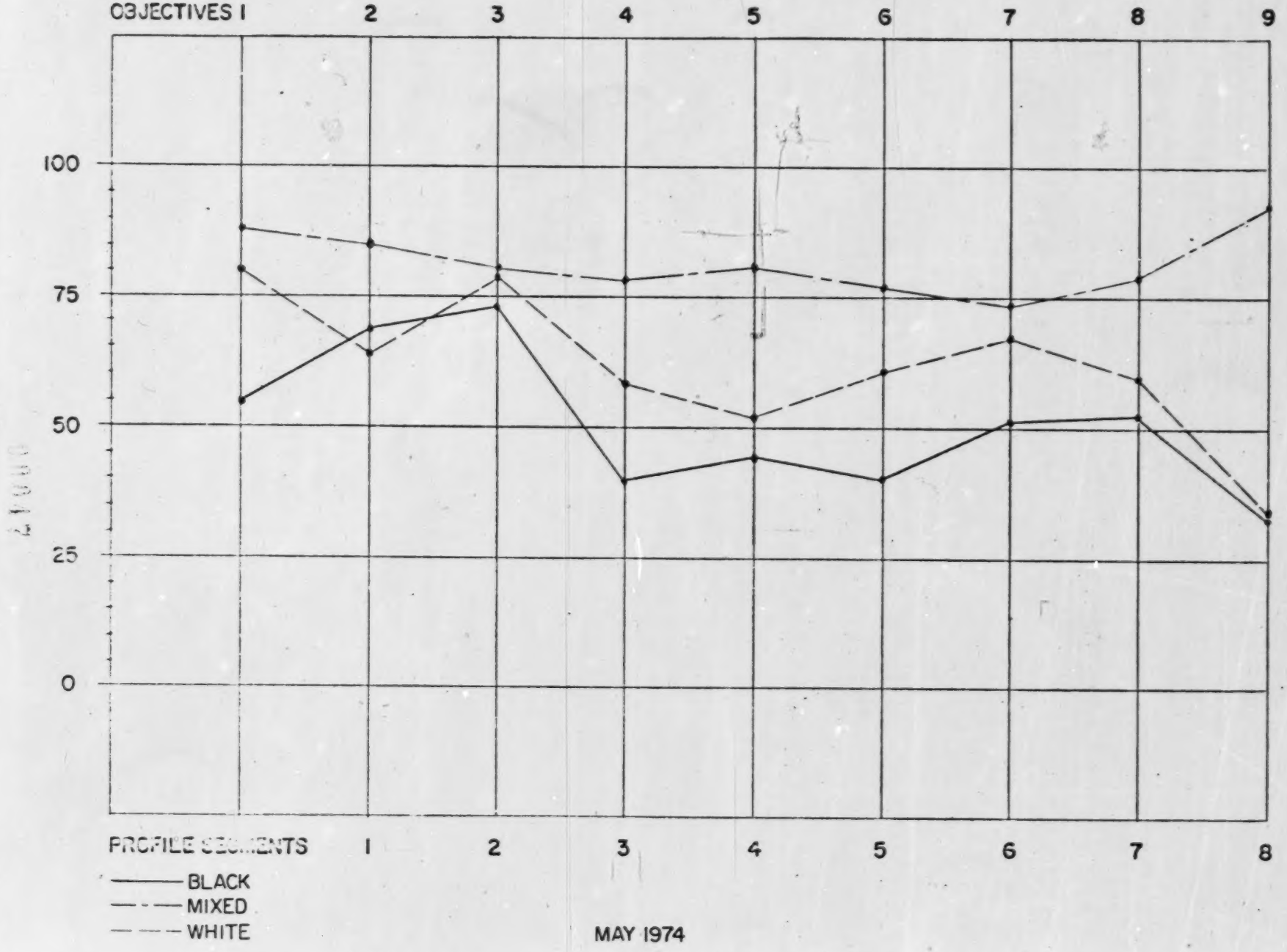
PEM EVALUATION PROFILE



DEC 1973


FEM EVALUATION PROFILE
OBJECTIVES 1 2 3 4 5 6 7 8 9
100
75
50
25
0
PROFILE SEGMENTS 1 2 3 4 5 6 7 8
BLACK
MIXED
WHITE
JAN 1974

PEM EVALUATION PROFILE



MAY 1974

APPENDIX C

BALTIMORE CITY PUBLIC SCHOOLS

Pre-Kindergarten Programs

Procedures for Administering and Scoring the

PUPIL EVALUATION MEASURE

Test Prepared by:
Velma Evans, Project Manager
Early Admissions Program
Dr. Edward N. Whitney, Staff Director
Office of Pupil and Program Monitoring and Appraisal

September 27, 1973

Procedures Revised by:
The Staff of the Pre-Kindergarten Component of the Office of Pupil and Program Monitoring and Appraisal

January, 1975

PUPIL EVALUATION MEASURE

I. INTRODUCTION: The Pupil Evaluation Measure (P.E.M.) is designed to individually assess the progress of the children in a given preschool program and to determine to what extent the program is meeting its objectives.

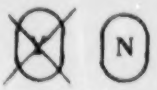
50

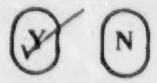
II. DIRECTIONS FOR USING THE IBM 3881 OPTICAL SCAN ANSWER SHEET

GENERAL

The answer sheet designed to be used with the Pupil Evaluation Measure (PEM) will be scored on optical scanning equipment. This requires the test administrator to exercise a certain amount of care in recording responses. The following general instructions must be followed:

1. Use a soft lead (No. 2) pencil. Do not use a ball-point or felt-tip pen.
2. Stray marks on the answer sheet must be avoided. Erase any stray marks completely.
3. Blacken the appropriate spaces completely.

INCORRECT 



CORRECT

4. If you make a mistake, or want to change an entry, erase completely.

BACKGROUND DATA

Prior to actually administering the PEM, the background data should be completed. Refer to the example answer sheet while following these instructions.

Write the numbers or letters in the blank space at the top of each item, one number (letter, or space) directly over each column. Then darken the corresponding space under each number (letter).

NOTE: Items occuring on the answer sheet will be written in **BOLDFACE TYPE** in these instructions and in the section on Procedures.

STUDENT: In these spaces you will put the student number as assigned by OPPMA.

SCHOOL: Enter the school number. All three columns should be filled.

EXAMPLE: School Number 4, fill in 0 0 4
School Number 63, fill in 0 6 3
School Number 240, fill in 2 4 0

TE (Teacher): Number assigned by OPPMA.

MO (Monitor): Your code as assigned by OPPMA.

PRESENT: Indicate the number of days the child has been present and

ABSENT: absent to date. Again, fill in every column.

EXAMPLE: 121 days, fill in 1 2 1
98 days, fill in 0 9 8
6 days, fill in 0 0 6

PUPIL NAME: Enter child's LAST NAME. If name is longer than 8 letters, fill in first 8 letters of name.

F: Enter child's first initial.

M: Enter child's middle initial.

MONTH: Enter month in which test is given. All spaces should be filled.

EXAMPLES: January, fill in 0 1
May, fill in 0 5
October, fill in 1 0

DAY: Enter date on which test is given. Again, all spaces should be filled.

SEX: Fill in (M) for male.
Fill in (F) for female.

CLASS: Fill in (1) if it is A.M. Class.
Fill in (2) if it is P.M. Class.
Fill in (3) if it is all day Class.

FAMILY: Fill in (1) if child is being raised by one parent.
Fill in (2) if child is being raised by both parents.
Fill in (3) if child is being raised by legal guardian.

AD: Fill in (Y) if child's family is receiving Aid to Dependent Children (ADC).
Fill in (N) if child's family is not receiving ADC.

RECORDING TEST ITEMS

Directions for recording the child's responses are included in the Specific Instructions for Administering the PEM. (Y) always indicates yes or correct. (N) indicates no, no response, or failure. Other entries are specified in the instructions.

III. SPECIFIC INSTRUCTIONS FOR ADMINISTERING THE PUPIL EVALUATION MEASURE

(P.E.M.)

III. Specific Instructions for Administering the Pupil Evaluation Measure (P.E.M.).

OBJECTIVE ONE: IDENTIFICATION

MATERIAL: **AN**: Toy dog, cat, mouse

PE: Set of (3) toy family members: father, mother, boy or girl

TO: Ball, truck, block

OT: Desk, chair, table

PROCEDURE:

(A) IDENtify :

AN: Place before the child the above animals and say, *"See all these things? Show me the mouse. Put your finger on the cat. Show me the dog."*

PE: Place before the child the three family members. Ask the child the same questions as above using: a. father, b. mother, c .boy or girl.

TO: Place the ball, truck and block before the child and repeat the procedure.

OT: Show the child the chair, table and desk and say, *"Point to a desk, point to a chair, and point to a table."*

SCORING: The child must identify all three objects correctly in each subtask above. If correct, mark (Y) on the answer sheet and ask the child the NAME question under that subtask.

(B) NAME :

AN: Place before the child the three toy animals and say, *"What is this?"* Pointing to the dog, then the cat and next the mouse. (Rat is an acceptable response for mouse.)

PE: Place before the child the same family members and say, *"What is this?"* Pointing to the boy or girl, then the mother, and next the father.

Acceptable responses:

1. mother, lady, mama, woman or any name for a female adult
2. father, man, daddy, pop or any name for male adult
3. boy, brother or any name specific for male youth
4. girl, sister or any other name specific for female youth

TO: Place before the child the toys and say, *" What is this?"* Pointing to each toy randomly.

OT: Point to each furniture piece randomly saying, *"What is this?"*

SCORING: Child must correctly name all three objects in each subtask. Go on to DESC in a particular subtask only if the child has recorded a (Y) in both IDEN and NAME.

(C) DESCribe:

AN: Pick one of the three toy animals at random, place it before the child and say, *"Look at this_____(naming the object). Tell me all about it. Tell me everything you know about it."* Repeat this for each object.

PE: Use the same procedure, as above, using the family member toys.

TO: Use the same procedure, using the classroom toys.

OT: Use the same procedure, using the furniture.

SCORING: In each subtask, the child must describe all three objects correctly to receive a (Y). A correct description is defined as a response by the child of several words, which includes some mention of the object's characteristics, e.g. form, color, function.

OBJECTIVE TWO: LANGUAGE

MATERIAL: Alternate: Social Studies picture of children playing.

PROCEDURE:

(A) TELL A STORY: Say to the child, *"I want you to think of a story. Tell me the story."* If the child does not immediately respond, the monitor may say, *"Tell me about something that happened yesterday."* If child indicates an inability to make up a story, use complete alternate procedure.

SCORING: Record (N) if child does not speak when asked to tell a story or when asked to tell the alternate story.

Record (1) if child says one or two words somewhat relevant to a story.

Record (2) if child says a sentence.

Record (3) if child says several sentences.

(B) WHAT ABOUT?: Say to child, *"Tell me what this story is all about?"*

SCORING: Same as above; (N) (1) (2) (3)

(C) WHO ABOUT?: Say, *"Who is in the story?"*

SCORING: Same as above; (N) (1) (2) (3)

(D) WHY LIKE?: Say, *"Why do you like the story?"*

SCORING: Same as above; **(N) (1) (2) (3)**

ALTERNATE PROCEDURE:

(A) TELL A STORY: Say: *"Look at this picture. Make up a story about this picture."* If the child still does not respond the monitor may say, *"Tell me what you see."* If at this time the child does not communicate a story score **(N)** and go on to **OBJECTIVE THREE**.

SCORING: Mark **(1)** if child clearly names or describes something in the picture using several words.

Mark **(2)** if child responds using a sentence.

Mark **(3)** if child uses several sentences.

(B) WHAT ABOUT?: (Administer and score like original question.)

(C) WHO ABOUT?: (Administer and score like original question.)

(D) WHY LIKE?: (Administer and score like original question.)

OBJECTIVE THREE: PROBLEM SOLVING

MATERIAL: Child's size coat, jacket or sweater.

PROCEDURE:

(A) ASSISTS NEW CLASSMATE: Ask child to listen very carefully and say, *"Pretend there's a new boy or girl in your class. Tell me how you would help him get ready for painting."* If necessary, help the child move through a sequence of events reminding the child about:

a. where materials are located
b. preparing self and area for working
c. getting materials
d. procedures for working
e. replacing materials and cleaning up.

SCORING: Mark **(0)** if child is unable to answer the question without a great deal of help (encouragement, coaxing, etc.) from the monitor.

Mark **(1)** if child identifies and describes 2 or 3 of the above steps with a minimum of help from the monitor.

Mark **(2)** if the child identifies and describes 4 or 5 of the above steps with a minimum of help from the monitor. If **(A)** is missed monitor still asks **(B)**.

(B) PUTS ON CLOTHES CORRECTLY: Take the child's coat, jacket or sweater, and place it on him upside down, i.e., right arm in left sleeve, left arm in right sleeve. Then say, *"Did I put your jacket on correctly?"* Wait and ask, *"Can you put it on right and tell me all about what was wrong?"*

SCORING: Mark (N) if child is unable to demonstrate putting his coat on correctly.

Mark (1) if child can demonstrate that the coat was placed on him incorrectly by reversing it correctly.

Mark (2) if child can explain why corrections are necessary.

Mark (3) if child demonstrates both by correcting the coat and explains why the corrections are necessary. Rely on child's spontaneity and probe only when necessary.

OBJECTIVE FOUR: CLASSIFICATION

MATERIAL:

	QUANTITY	ITEM
(A) BEAD:	2	1 inch red square beads
	2	3 inch red round beads
	2	1 inch yellow round beads
	2	3 inch yellow square beads
(B) BLOC:	2	1 inch blue square blocks (sm)
	2	3 inch by 5 inch blue rectangular blocks (lg)
	2	1 inch by 2 inch purple rectangular blocks (sm)
	2	4 inch purple square blocks (lg)
(C) PAPR:	2	2 inch green enginex (square) paper
	2	4 inch green enginex (triangular) paper
	2	1 inch black enginex (triangular) paper
	2	4 inch black enginex (square) paper
(D) FORK:	2	small white (2) prong forks
	2	large white (4) prong forks
	2	small blue (4) prong forks
	2	large blue (2) prong forks

	QUANTITY	ITEM
(E) SPON:	2	small white plastic spoons
	2	large white long iced tea spoons
	2	small pink long iced tea spoons
	2	large pink plastic spoons
(F) BOOK:	2	small red square books
	2	large red rectangular books
	2	small yellow rectangular books
	2	large yellow square books

PROCEDURE:

(A) BEAD

FM: Place the eight beads before the child in a scrambled fashion and say, *"Group the square beads together, and the round beads together."* If the child does not seem to understand the directions say, *"Make two piles, one pile of square beads, one pile of round beads."* The same statement can be used whenever there is misunderstanding.

CR: Scramble the beads and say, *"Group the red beads together and the yellow beads together."*

SZ: Scramble the beads and say, *"Group the small ones together and the larger ones together."*

FN: Scramble the beads and say, *"Now TELL me something, what are beads used for?"* (Probe for more specific answer, if *"play"* is given).

SCORING Mark (Y) on the answer sheet under the appropriate column, if child classifies correctly.

Mark (Y) , if he explains function.

(B) BLOC

FM: Place the eight blocks in a scrambled fashion before the child and say, *"Put the blocks that are the same SHAPE together. Put the square blocks together and rectangular blocks together. Make two piles."*

CR: Scramble the eight blocks and say, *"Put the blue blocks over here and the purple blocks over here,"* pointing to opposite sides of the working desk.

SZ: Scramble the eight blocks and say, *"Put the bigger blocks here, and the smaller blocks over here,"* pointing to opposite sides of the desk.

FN. Scramble the blocks and say, *"Now TELL me, what are blocks used for?" ("What do we do with blocks?")*

SCORING: Same as above.

(C) PAPER

FM: Place the eight pieces of paper before the child in a scrambled fashion and say, *"Put the square pieces here and the triangular ones over here,"* again pointing to opposite sides of desk.

CR: Scramble the paper and say, *"Now group the yellow paper together and the red paper together."*

SZ: Scramble the paper and say, *"Put the larger paper over here and the smaller pieces of paper over here."*

FN: Scamble the paper and say, *"Now TELL me, what is paper used for?" ("What do we do with paper?")*

SCORING: (Same as on preceding page.)

(D) FORK

FM: *"Put the forks that are EXACTLY the same SHAPE together."*

CR: *"Put the forks together that are the same COLOR."*

SZ: *"Group the forks together that are the same SIZE."*

FN: *"What is a fork used for?"*

SCORING: (Same as on preceding page.)

(E) SPOON

FM: *"Put the spoons that are the same SHAPE together."*

CR: *"Put the spoons together that are the same COLOR."*

SZ: *"Group the spoons together that are the same SIZE."*

FN: *"What is a spoon used for?"*

SCORING: (Same as on preceding page.)

(F) BOOKS

FM: *"Group the books together that are the same SHAPE."*

CR: *"Group the books together that are the same COLOR."*

SZ: *"Group the books together that are the same SIZE."*

FN: *"What are books used for? 'Why do we have books?"*

SCORING: (Same as on preceding page. Be sure to give all subtasks.)

OBJECTIVE FIVE: VIS/AUD PERCEPTION

MATERIAL:

(A) DISC
- toy cat and dog
- toy man and woman
- toy truck, airplane and boat
- air, land, water scene 18 inch by 24 inch
- 11 pictures - bird, airplane, superman, whale, fish, submarine, apple, monkey, carrots, cabbage, peas

(B) RECA
- 3 - 1 inch blue square blocks
- 1 - inch red square block
- 8 inch by 11 inch piece of drawing paper with a circle,square and crayon shape drawn on it.
- crayon, bead
- 8 inch by 11 inch paper
- 1 - inch square purple block

PROCEDURE:

(A) DISCrimination

EZ: Place before child in scrambled fashion the cat, dog, man, woman, truck, boat and airplane and say, *"Put these different things in three groups. Put the ones that go together in the same group."*

SCORING: Child is expected to group animals, people and inanimate objects in three separate groups. Mark (Y) if 3 correct categories were made. If correct, monitor is to go on to HD.

HD: Place the air, land, water scene and the truck, airplane, and boat before the child and say, *"Look at this picture. Where does the boat go?"* (If child does not immediately say *"water"*, give child the boat and have him demonstrate where it goes on the picture.) *"Where does the truck go?"* (Same as above.) *"Where does the plane go?"*

SCORING: Mark (Y) if all three items are correctly identified with their proper setting. (either verbally or nonverbally) If correct, go on to DIFFI.

DIFFI: 1. Place before the child the pictures of a bird, plane and superman and say, *"Which one flies in the air and needs gas?"* (accumulate total correct before marking answer sheet)

2. Place before the child the pictures of the whale, the fish and the submarine and say, *' Which one goes under water and carries men?"*

3. Place before the child the pictures of an apple, bird and monkey and say, *"Which one grows on a tree?"*

4. Place before the child the pictures of carrots, cabbage and peas, and say, *"Which one grows UNDER the ground?"*

SCORING: Accumulate the total correct and mark the number under **DIFFI**.

(B) RECAll

EZ: Place 3 blocks before the child in this order: blue, red, blue. Say to the child, *"Take a good look"* (4 sec), then say, *"now close your eyes."* Remove the center red block and place it with the remaining two blocks (1 purple and 1 blue) over to the side. Say, *"Now open your eyes and find the one that I took away and put it back where it belongs."*

SCORING: Mark (Y) if successful. If correct go on to **HD**.

HD: Place the paper with the drawn geometric patterns before the child and next to it place a crayon, block, bead, cat, truck and man in scrambled fashion. Say, *"Pick out the objects that match the shapes on my paper. Put them right on top of the similar shape."*

SCORING: Mark (Y) if all 3 objects:bead, block and crayon are correctly superimposed over the correct shape. If correct, move on to **DIFFI**.

DIFFI: Place the piece of 8 inch by 11 inch paper before the child with the crayon and say, *"Draw a circle."*

SCORING: Mark (Y) if child achieves rotary movement and closed figure.

OBJECTIVE SIX: MOTOR PERCEPTION

MATERIAL: large size doll
yardstick or pointer

(A) SKILLS

EZ: Stand up and have child stand up. Place hands on hips and jump up and down once saying, *"Watch what I do . . . Do what I did."*

SCORING: Mark (Y) if correctly performed and move to **HD**.

HD: Say, *"Now, jump up and down three times with your arms out like this."* (Show how arms are outstretched without jumping.)

SCORING: Mark (Y) if correctly performed and move to **DF**.

DF: Say, *"Now, jump up and down five times on one foot with your arms outstretched."* (allow two trials) Tester should not demonstrate, but should count along with the child until he reaches five.

SCORING: Mark (Y) if correctly performed once.

(B) ID/DESC

EZ: Place the doll before the child and while pointing to a specific part of the body say, *"What is this?"* or *"What are these?"* Body parts to point to are: a. eyes b. ears c. legs d. mouth e. nose f. feet g. hands.

SCORING: Child must correctly name all seven of the above body parts in order to receive a **(Y)** on the answer sheet. Go on to **HD**.

HD: Give the child the doll and say, *"What do we EAT with? Point to it."* Child should both point to the doll's mouth and say mouth.
"What do we SEE with? Point to them." (eyes)
"What do we RUN with? Point to them." (feet or legs)
"What do we HEAR with? Point to them." (ears)
"What do we SMELL with? Point to it." (nose)

SCORING: Child must both correctly point to and name all the **HD** parts of the body given above . If child is correct go on to **DF**.

DF: Take away the doll and say, *"Now I am going to say a part of the body and you tell me, what it is for or what it does."* (If child does not understand, monitor may say, *"Well, what do we use it for?")* Say, a. *"hand(s)"* b. *"arm(s)"* c. *"nose"* d. *"teeth"* e. *"feet"*.

SCORING: Child must describe correct function of all parts a - e listed under **DF**.

(C) ORIENTation

EZ: Say, *"Watch carefully what I do."* Place a yardstick on two desks so as to form a bridge and crawl under the yardstick bridge. Standing opposite the child with the yardstick bridge between you and the child say, *"Come to me. Do what I did."* Now take two SMALL chairs, make another yardstick bridge, and step over the bridge. Standing opposite the child with the yardstick between you and the child, say, *"Come to me, doing what I did."*

SCORING: Mark **(Y)** under **EZ** if child correctly imitates body movements. If correct go on to **HD**.

HD: Say, *"Remember what we just did with the desks, can you do it again without me showing you how."* (Have yardstick bridge between you and child.) Put chairs with yardstick bridge in between you and the child and say, *"Remember what we did with the chairs, show me."*

SCORING: Child is expected to imitate the monitors original body movements. If correct go on to **DF**.

DF: Find a space that is without desks, chairs, and yardsticks and say, *"Remember how you crawled under the yardstick? I want you to pretend there's a yardstick and desks here and show me how you would get under it."* Say, *"Remember how you got past the yardstick and chairs, can you pretend a yardstick is here and show me how you got by it."*

SCORING: Child must demonstrate ability to crawl under and walk over imaginary obstacles.

OBJECTIVE SEVEN: QUANTITATIVE

MATERIALS: 2 12-inch lengths of yarn
5 square beads (blocks)

PROCEDURE:

(A) EZ: Take one piece of year and form a circle with it. Then put two (2) blocks inside this circle. Give the child the other piece of yarn and the remaining blocks. Say, *"See what I've made. I want you to make one that is just like mine."*

SCORING: If the child is able to copy the set, mark **(Y)** and go to **(B) EZ.**

(B) EZ: If child successfully completes **(A) EZ** above, say, *"Count how many blocks you have in your set."*

SCORING: If the child correctly counts the blocks, mark **(Y)** and go to **(A) HD.**

(A) HD: Give the child a piece of string and all the blocks. Say, *"Make a set with one (1) block in it."* If child does this correctly, then say, *"Now make a set with three (3) blocks in it.*

SCORING: If the child correctly makes sets of both 1 and 3 blocks, mark **(Y)** and go to **(B) HD.**

(B) HD: Using the child's set of 3 blocks (or making one yourself), take one block away and say, *"How many blocks are left?"* Then put the block back and say, *"How many blocks are there now?"*

SCORING: If the child correctly answers *"Two"* and *"Three"*, mark **(Y)**, and go to **(A) DF.**

(A) DF: Give the child both lengths of yarn and all the blocks and say, *"Make two sets that are the same."* If the child is able to do this, say, *"Make two sets with different numbers in them."*

SCORING: If the child is able to make both equal and unequal sets, mark (Y) and go on to (B) DF.

(B) DF: Give the child all materials and say, *"Now make me another set."* When the child completes a set, say, *"Tell me about this set you've made."*

SCORING: If the child, in describing the set, identifies the number of blocks in it, mark (Y).

OBJECTIVE EIGHT: SELF CONCEPT

MATERIALS:

(A) SELF:	2	sheets 8 inch by 11 inch white paper
	1	sheet of paper with child's first name printed on it
	1	sheet of paper with child's first and last name printed on it
	1	crayon
(B) OTHERS:	1	piece of the child's art work
	3	similar pieces of other children's art work

PROCEDURE:

(A) SELF

EZ: Say to the child, *"Can you tell me your name?"*

SCORING: If child says both his first and last name, mark (Y) under EZ column and go on to HD.

HD (1st Line): Show child the paper with his first name on it. Say, *"What name is this?"*

SCORING: If child recognizes his name, mark (Y) in the first entry under HD and go on to next HD below.

HD (2nd Line): Show child the paper with his full name on it. Say, *"What name is this?"*

SCORING: If child recognizes both his first and last name, mark (Y) in the second entry under HD and go on to DF on next page.

DF (1st Line): Print child's first name on a blank sheet of paper and give him the paper and the crayon. Say *"Let's see you print your name."*

SCORING: If child is able to copy his name, mark **(Y)** in the first entry under **DF** and go on to **DF** below.

DF (2nd Line): Give child the other blank sheet of paper and say, *"Would you please print your name for me again."* This time, do not let the child see his name printed elsewhere. Also, do not help him in any way.

SCORING: If child succeeds in printing his first name, mark **(Y)** in the second entry under **DF**.

(B) OTHERS

First Line:

EZ: Put a piece of the child's work, along with work by other children,in front of the child. Say, *"Point to the one you did."*

SCORING: If child points to his own work correctly on the first attempt, mark in the first entry under **EZ** and go on to **HD** below.

HD: With work still in front of child, say, *"Show me how you can tell yours from the other ones."*

SCORING: If child can point out at least one difference, mark **(Y)** in the first entry under **HD** and go on to **DF**.

DF: Take the materials away and say, *"Without looking, tell me how I can tell your work from everybody else's."*

SCORING: Child must explain at least one way to distinguish his work from other children's work. If he does, mark **(Y)** in the first entry under **DF** and go on to second line **EZ** below.

(B) OTHERS

Second Line:

EZ: Ask the child, *"Do you have any brothers or sisters?"* If the child says yes, say, *"Can you tell me their names?"*

SCORING: If child names brother(s) and/or sister(s),or if he correctly answers no, if an only child, mark **(Y)** in the second entry under **EZ** and go on to **HD** on next page.

HD: Ask the child, *"Can you tell me who else lives with you?"*

SCORING: If child gives any response which indicates a family relationship, e.g. Mom, Dad, Aunt Tanya, grandma, Mark (Y) in the second entry under **HD**. If the child gave just first name, the monitor may further question the child to determine whether or not the person is actually a member of the household. If the child answers this item correctly, go on to **DF** below.

DF: Pick two (2) people from those named by the child as household members (or friends) and say, a) *"Who's older, your mother (father, grandmother), or you?"* b) *"Who's younger, your father (uncle, etc) or you?"* Use a different person in the two questions.

SCORING: If the child answers BOTH questions correctly, mark (Y) in the second entry under **DF** and go on to the third line **EZ** below.

(B) OTHERS

Third Line:

EZ: Ask the child, *"What do you do to help around the house?"*

SCORING: Child must be able to name at least one thing he does without additional prompting from monitor. If he does, mark (Y) in the third entry under **EZ** and go on to **HD** below.

HD: Ask the child, *"Why do you think you were asked to (whatever child said in* **EZ** *above) and not someone else?"*

SCORING: Child must give at least one reason. If he does, mark (Y) in the third entry under **HD** and go on to **DF** below.

DF: Ask the child, *"How would you like to help around the house if you had a choice?"* If the child says, *"I don't know"* or just shrugs, the monitor may encourage him by saying *"I'll bet there are a lot of things you would like to do around the house. Tell me about one of them."*

SCORING: Child must be able to state at least one thing he would like to do around the house. If he does, mark (Y) in the third entry under **DF**.

OBJECTIVE NINE: ART MEDIA

This objective takes careful scoring and special attention on the answer sheet. Please note that (B) and (C) are given first, (E) and (A) follow, and (D) and (F) are administered last. Administer (B) and (C) by themselves the first third of the year, (E) and (A) the second third of the year, and (D) and (F) the last third of the year. Give the entire OBJECTIVE NINE at the final testing session.

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MATERIALS: Completed drawings in each art media.
Provide art materials in each media when needed.

PROCEDURE:

(B) CRAYON

EZ: Place the completed crayon drawing before the child and say, *"What would you need to draw something like this?"*

SCORE: If child says crayon(s) mark (Y) under EZ and move on to HD.

HD: Place crayons and paper before the child and say, *"What are these used for; tell me all about what you do with these."*

SCORE: Child must identify purpose of materials and describe with several words their function.

DF: While crayons and paper are still before the child say, *"Show me how you use these and tell me about what you're doing."*

SCORE: Child must demonstrate by drawing on the paper with the crayon and say several words about his drawing or about crayon drawing.

(C) CUTTING: Use procedures and scoring instructions above, substituting cutting and pasting.

SCORE: Same as above.

(E) FINGER: Substitute finger painting and do same as above.

SCORE: Same as above.

(A) BRUSH: Substitute brush painting and do same as above.

SCORE: Same as above.

(D) SPONGE: Substitute sponge painting and do same as above.

SCORE: Same as above.

(F) CLAY: Substitute clay and do same as above.

SCORE: Same as above.